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1993 69th annual

SUMMARY OF ILLINOIS FARM BUSINESS RECORDS



COMMERCIAL FARMS: Production / Costs / Income / Investments

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN / COLLEGE OF AGRICULTURE / COOPERATIVE EXTENSION SERVICE

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SOURCE OF DATA

This report is based on data obtained from farm business records on 7,113 Illinois farms. It is the 69th annual summary of such records obtained from farmers cooperating with the University of Illinois Co-operative Extension Service, the Department of Agricultural Economics, and the Illinois Farm Business Farm Management (FBFM) Association.

At present, about one out of every five Illinois commercial farms with over 500 acres or total farm sales over \$100,000 is enrolled in this service, which grew steadily until 1982. Except for 1988, enrollment has declined slightly each year since 1982. One factor contributing to this decline has been the continued decline in the number of farms in the state. In 1994, 10 associations in 102 counties are being served by 66 full-time field staff and one half-time field staff specialist. Participation in this farm-business analysis program is voluntary; cooperating farmers pay a fee for the educational services.

The program's development since 1940 is shown below.

Year	Associa- tions	Counties partici- pating	Field staff employed	Farmers enrolled
1940	3	23	3	680
1950	8	59	15	2,760
1960	10	100	33	5,494
1970	10	102	42	6,553
1980	10	102	67	8,205
1990	10	102	70	7,192

Estimates for 1993 indicate that 90 percent of the 7,113 farms covered in this report are larger than 240 acres. For the most part, this 90 percent falls within the size of business that includes farms selling \$50,000 or more of farm products per year. In the 1992 Census of Agriculture, farms selling \$50,000 or more accounted for 91 percent of all sales from Illinois farms.

The segment of Illinois agriculture that includes farms with more than 180 acres is often referred to as "commercial farming." In 1992, there were 38,895 farms in Illinois with more than 180 acres and with sales of \$10,000 or more. The figures that follow, taken from the 1992 Census of Agriculture, show that these farms represented 75 percent of the 52,198 farms larger than 50 acres and that these farms produced more than 99 percent of the agricultural products sold from Illinois farms.

Acres per farm	Percent of all farms over 50 acres	Percent of census farms enrolled in FBFM	Number of farms enrolled in FBFM
180-499	38.6	9.2	1,856
500-999	24.4	18.2	2,320
1,000+	11.5	20.8	1,244

Although most of the 1993 recordkeeping farms covered in this report are within the two smaller size groups, the figures show that they are not distributed proportionately among the groups. There were 5,977 farms identified by the Census with more than 1,000 acres in 1992. About a fifth of these farms (20.8 percent) were enrolled in the Illinois FBFM Association. Of the 12,750 farms in the group having from 500 to 999 acres, 18.2 percent also participated in the farm record program. Only about 5 percent of the farms enrolled had fewer than 160 acres. The average size of all farms enrolled in 1993 was 779 acres, compared with an average of 354 acres for all Illinois farms.

The data presented in this report is the total of operator and landlord income, expenses, and investments in the farm business. The group averages are identified by size of business, type of farm, and quality of soil found on the farm. Where segments of Illinois agriculture are identified by these criteria, the data from recordkeeping farms may be used with reasonable confidence, even though the recordkeeping farms as a group do not represent a cross section of all commercial farms in the state.

USES FOR THIS REPORT

The management of a modern commercial farm involves decision making in the application of technology, the choice of a proper combination of crop and livestock enterprises, and effective business administration of the farming operations. A basic analysis of a farm business involves a careful study of past performance to detect problems and strengths in the farming operation. Also involved is the process of planning and developing future operations to realize the full potential of the land, labor, and capital resources available and to improve the economic efficiency of the farm business.

The farm-business summaries contained in this report are used by individual farmers to analyze their business operations and to develop plans for future farming operations. This report summarizes the information so that specialists involved in agricultural extension, research, teaching, and agribusiness activities may use the data to help them perform their duties effectively. The definition of terms and accounting measures on the following pages will be of assistance in using the data.

The first part of the report (Tables 2, 3, 4, 5, 7, and 8) summarizes selected recent changes in farm income on Illinois farms. It also identifies economic forces and factors that contribute to these changing trends. The data presented in Tables 5 through 8 are the total of operator and landlord data. Some of the data used in the text are drawn from previous issues of this report.

The second section (Tables 9 to 18) presents data on livestock enterprises. The comprehensive and detailed information contained in this section is a valuable resource for anyone interested in livestock production. Because part of the feed grains and roughages produced on Illinois farms is marketed through livestock, the margins of income from livestock enterprises are important in interpreting the economic results of some farming operations.

The third section (Tables 19 to 27a) discusses costs, returns, financial summaries, investments, land use, and crop yields for different sizes and types of farms in northern, central, and southern Illinois. It is the total of operator and landlord data. It reports on the 25 percent of grain farms that received the highest return to management per dollar of cost and the 25 percent that received the lowest return. It also reports on two-man and three-man hog and beef farms. A two-man hog and beef farm uses from 21 to 27 months of labor; a three-man hog and beef farm, from 31 to 39 months.

DEFINITION OF TERMS AND ACCOUNTING METHODS

Soil-productivity rating

This rating is an average index representing the inherent productivity of all tillable land on the farm. Individual soil types on each farm are assigned an index ranging downward from 100. All ratings were revised in 1971 to reflect a basic level of management as outlined in Circular 1156 of the Illinois Cooperative Extension Service, *Soil Productivity in Illinois*. New land values were assigned in 1980. The adjustment of land values brings them to current market levels.

Hay equivalents, tons

To get the equivalents, we took the total of 1.0 multiplied by the pounds of hay, 0.45 multiplied by the pounds of hay silage, 0.33 multiplied by the pounds of corn silage, and 24 multiplied by the pasture days per feed unit (which are also multiplied by the total feed units per cow). This total is then divided by 2,000.

Sampling technique

Data from all records certified usable for analysis by field staff were aggregated by size (acres or number of cows), type of organization, value of the feed fed, and soil-productivity rating. Electronic data-processing was used to summarize the data.

Type of farm

Grain farms are farms where the value of the feed fed was less than 40 percent of the crop returns

and where the value of feed fed to dairy or poultry was not more than a sixth of the crop returns. Since 1973, farms with livestock have been essentially excluded from the sample of grain farms in northern and central Illinois in Table 19; since 1978, from the grain-farm sample in Table 20; and since 1982, from the grain-farm sample in Table 5.

Hog or beef farms are farms where the value of feed fed was more than 40 percent of the crop returns and where either the hog or beef-cattle enterprise received more than half of the value of feed fed.

Dairy farms are farms where the value of feed fed was more than 40 percent of the crop returns and where the dairy enterprise received more than one-third of the value of feed fed.

Cost items

The *value of feed fed* includes on-the-farm grains with the following average prices per bushel: corn, \$2.28; oats, \$1.54; and wheat, \$3.19. Commercial feeds were priced at actual cost, hay and silage at farm values, and pasture at 40 cents per animal unit per pasture day. A pasture day represents an intake of about 20 to 25 pounds of dry matter, defined as 16 pounds of total digestible nutrients (TDN) from the pasture used.

Cash operating expenses include the annual cash outlays for these nondepreciable items: fertilizer, pesticides; seeds (including homegrown seeds); machinery repairs; machine hire and lease; fuel and oil; the farm share of electricity, telephone, and light vehicle expenses; building repairs; drying and storage; hired labor; livestock expenses; taxes; insurance; and miscellaneous expenses. Purchased feed, grain, and livestock are not included because they have been deducted from gross receipts in computing the value of farm production. The interest paid is not included because an interest charge is made on the total farm investment. But the total interest paid by the operator only on all debt—operating debt plus longer-term debt—is listed separately in Tables 19a to 27a under “Some costs and returns per tillable acre.”

Machinery and equipment include depreciation; repairs; machine hire and lease; fuel and oil; and the farm share of electricity, telephone, and light vehicle expenses.

Labor includes hired labor plus family and operator's labor, charged in 1993 at \$1,575 a month.

Interest on nonland capital covers the interest charged at 7 percent on the sum of one-half the average of the January 1 and December 31 inventory values of grain, plus the average of the January 1 and December 31 inventories of remaining capital investment in livestock, machinery and light vehicles, buildings, and soil fertility, plus one-half the cash-operating expense, exclusive of interest paid. In Tables 5, 7, and 8, this charge is combined with the land charge or net rent and labeled interest charge

on capital. The average cash interest paid per farm by all farm operators was \$14,422. Details on operator and landlord shares of expenses and income are published annually in research reports by the Department of Agricultural Economics.

Land charge or net rent is the bare land priced at current land values multiplied by 4.5 percent to reflect net rents received by the landlord.

Total nonfeed costs include cash-operating expenses, adjustments for accrued expenses and farm-produced inputs, depreciation, and charges for unpaid labor and interest including land charge. Purchased feeds and livestock are omitted.

The *basic value of land* (the *current basis*) is adjusted each year according to the February index of land prices in Illinois as reported by the United States Department of Agriculture (USDA). An additional adjustment was made to this index in 1984 to reflect the large drop in land values. The land value index for 1993, using a base earning value of 1979 = 100, was 70.

The *capital account adjustment* includes the gain or loss on capital items sold less any amortization deduction.

Return items

Crop returns are the sum of grain, seed, and feed sales; the value of homegrown seed used; the value of all feed fed (except milk); government-deficiency and diverted-acre payments received and accrued; and the change in value for feed and grain inventories, less the value of feed and grain purchased. Government PIK (payment in kind) certificates purchased to redeem grain under government loan are included in the feed-and-grain purchase account.

The *total value of farm production* is the cash and accrued value of sales of products and services, less the cost of purchased feed, grain, and livestock, plus the change in inventory values for grain and livestock, plus the value of farm products used.

Net farm income is the value of farm production, less total operating expenses and depreciation, plus gain or loss on machinery or buildings sold. Net farm income includes the return to the farm and family for unpaid labor, the interest on all invested capital, and the returns to management.

Labor and management income per operator is total net farm income, less the value of family labor and the interest—including net rent—charged on all capital invested. This figure, as the residual return to all unpaid operators' labor and management efforts, is then divided by the months of unpaid operator labor and multiplied by 12 to reflect income for one operator on multiple-operator farms.

Capital and management earnings are net farm income, less a charge for all unpaid labor.

Management return is the residual surplus after a

charge for unpaid labor and the interest or land charge on capital are deducted from net farm income.

The *rate earned on investment* is capital and management earnings—interest on all capital and land charge, plus management returns—per \$100 of the total farm average annual investment.

RECENT CHANGES IN INCOME ON ILLINOIS FARMS

Farm business trends in 1993

Illinois agriculture is based largely on crop production, especially corn and soybeans. In 1993, Illinois ranked first in the nation in the production of soybeans and of corn. The total value of corn and soybeans produced on Illinois farms was 21 percent of the total U.S. production for these crops. In 1992, the total value was 69 percent of the total value of production in Illinois from all crops and livestock and 91 percent of the value of production from all crops produced.

Crops. Year-to-year variations in net income are related to crop yields, grain prices, and acres in high cash-value crops. Corn yields in 1993 were lower than the record set in 1992, while soybean yields were equal to those of 1992. In 1993, the average corn yield for Illinois was 130 bushels per acre, 19 bushels below the 1992 record high yield. Recordkeeping farms averaged 132 bushels per acre in 1993, 21 bushels below the 1992 yield. Soybean yields were 43 bushels per acre in 1993, equal to the record set in 1992. Recordkeeping farms averaged 45 bushels per acre in 1993. Crop yields on the 7,113 record-keeping farms covered in this report averaged 2 to 5 percent above the average for all Illinois farms reported by the Illinois Crop Reporting Service.

This was the second year that crop sales have been divided between old and new crop sales. The prices received for old crop soybeans sold during the year averaged 32 to 35 cents per bushel above 1992 prices (Table 1). Corn prices received in 1993 averaged 14 cents less than those received in 1992. The price received for new crop corn averaged 29 to 34 cents higher than the year before, and the price received for new crop soybeans averaged 81 to 85 cents higher. Wheat sold for 38 to 47 cents less per bushel during the year. Crops under loan with the Commodity Credit Corporation (CCC) and forfeited at the end of the loan period are included as grain sales. The selling price would be the loan rate for that particular crop. Positive marketing margins on old-crop corn inventoried at the beginning of the year averaged about 14 cents. The average price received for old-crop soybeans was 46 cents above the beginning-of-year inventory price. The year-end, new-crop corn inventory price was 70 cents higher

Table 1. Average Prices Received and Paid by Farm Recordkeepers for Grain, Livestock, and Milk

	1993		1992	
	Northern Illinois	Southern Illinois	Northern Illinois	Southern Illinois
Grain prices per bushel				
Purchased — corn ..	\$2.26	\$2.33	\$2.28	\$2.39
Sold — corn,				
old crop ..	2.18	2.19	2.32	2.33
corn,				
new crop	2.36	2.30	2.02	2.01
soybeans,				
old crop ..	6.00	5.93	5.65	5.61
soybeans,				
new crop	6.27	6.12	5.42	5.31
wheat	2.73	2.87	3.20	3.25
Livestock prices per cwt				
Hogs, all weights ..	\$45.63		\$41.83	
Fed cattle, all				
weights	75.59		73.41	
Feeder cattle, all				
weights, prices				
paid	85.85		81.64	
Dairy cattle, all				
weights	59.53		60.45	
Sheep and wool,				
all weights	50.78		48.51	
Milk per cwt	12.53		13.07	

than it was the year before, and the year-end, new-crop soybean inventory price was \$1.25 higher.

Production of the major crops in 1993 was lower than in 1992. Compared to 1992, corn production was down 21 percent; soybean production was down 8 percent; oat production was down 42 percent and at record low levels; grain sorghum production was down 35 percent. Wheat production was up 9 percent due to more acres harvested. The average yield of 44 bushels per acre was 10 bushels below the previous year's average. Hay production was up 24 percent. The Illinois 1993 All Crop Production Index, using a base value of 1977 = 100, was 110, down from 128 in 1992. Acreages of corn harvested for grain was down 10 percent from 1992 to 1993, while soybean acreage was down 8 percent from 1992. Wheat acreage harvested for grain increased 35 percent. Farmers abandoned only 7 percent of the acres planted compared to 21 percent not harvested the year before.

The 1993 growing season was a challenge for farmers in many areas of the state. The season began with below normal temperatures, muddy fields, and flooding. Major flooding, especially along rivers in the western part of the state, continued all summer. Corn planting began about 3 weeks later than usual. Farmers were able to catch up later in May and finished by the third week of June.

Crop progress continued to lag behind normal and was further affected by heavy rainfall and flooding during the summer. Hot, humid weather in late August helped crops develop and improve. Harvest

began in late September but was slowed due to wet field conditions. Drier weather in late October and early November allowed the harvest to be completed by mid-November.

Soybean planting also got off to a slow start and progressed about 2 weeks later than usual due to wet fields. Only 60 percent of the crop was planted by June 1. Early June rains further delayed planting and hindered emergence. Some acreage had to be replanted. Warmer weather in July and adequate moisture in August resulted in good crop progress. Crop maturity was about a week behind schedule, with harvesting starting in early October. The harvest was fairly well completed by late October.

Livestock. A second major determinant in farm income is the price farmers receive for livestock and livestock products. In 1993, the average prices received by farm recordkeepers in the Illinois FBFM Association were 9 percent higher for hogs, 1 percent higher for fed cattle, and 4 percent lower for milk than they were in 1992 (Table 1). The prices paid for all weights of feeder cattle and feeder pigs averaged 5 percent above the 1992 price for feeder cattle and 25 percent above the 1992 price for feeder pigs. Lower returns due to higher prices paid for feeder cattle caused returns above feed and purchased animals for the feeder-cattle enterprise to decrease from \$25.40 per hundredweight produced to \$17.10 (Table 10). Higher hog prices increased returns above feed cost from \$16.45 per hundredweight produced to \$18.76. Returns above feed were below the 5-year average for 1989 through 1993 by \$0.59 per hundredweight produced. Lower milk prices and higher feed costs in 1993 made dairy returns above feed cost per cow decrease from \$1,398 in 1992 to \$1,178 in 1993 and 7 percent below the average for the 5-year period from 1989 through 1993.

Labor and management income

The average operator's share of labor and management income for the 5-year period from 1989 through 1993 on all northern Illinois recordkeeping farms (located north of a line from Kankakee to Moline) was \$22,832. Operators on 1,600 grain and hog farms in central Illinois had 5-year average earnings of \$33,958 (Table 2). Central Illinois occupies the area between the Kankakee-Moline line in the north and the Mattoon-Alton line in the south. Smaller farms and variable soil quality in northern Illinois have generated smaller earnings from crops. The farms in northern Illinois typically average 5 to 10 percent lower crop yields than those in central Illinois.

Northern Illinois has a heavier concentration of livestock, which, except for hogs, had lower earnings in 1993 compared to 1992. The difference in earnings between central and northern Illinois increased by \$3,695 in a comparison of the 5-year averages for the periods from 1988 through 1992 and from 1989

Table 2. Operator's 5-Year Average Share of Labor and Management Income by Size and Type of Farm, 1989 Through 1993

	Number of acres per farm			All
	Under 340	340 to 649	650+	
Northern Illinois				
Acres of tillable land	242	480	962	590
Labor and management earnings by type of farm				
Grain	\$ 8,090	\$20,037	\$35,810	\$25,982
Hog	14,543	24,904	34,095	22,675
Beef ^a	2,924	8,506	14,081	8,746
Dairy	15,217	22,961	...	18,090
All	11,633	20,150	33,916	22,832
Central Illinois				
Acres of tillable land	275	507	981	724
Labor and management earnings by type of farm				
Grain ^b	\$14,156	\$27,754	\$49,385	\$37,828
Grain ^c	7,190	20,997	38,019	29,421
Hog	17,556	28,241	44,066	30,851
All	13,182	25,584	44,574	33,958
Southern Illinois				
Acres of tillable land	260	593	1,174	796
Labor and management earnings by type of farm				
Grain	\$ 9,491	\$16,198	\$33,885	\$26,356
Hog	14,199	31,251	...	27,166
Dairy	28,655	35,113	...	32,013
All	16,226	23,851	33,885	27,047

^a Includes central Illinois.

^b Highly productive soils with soil-productivity ratings from 86 to 100.

^c Heavy-till and transition soils with soil-productivity ratings from 56 to 85.

^d Data not available.

through 1993. The northern Illinois area in general suffered from a wet growing season in 1993 more than central and southern Illinois, resulting in considerably lower yields in the northern area of the state. The recordkeeping farms in northern Illinois averaged 590 tillable acres per farm, compared with an average of 724 tillable acres on farms in central Illinois.

The figure for labor and management income varies considerably, depending on the location and type of farm. For the period from 1989 through 1993, operators in southern Illinois averaged \$27,047 for labor and management. This average increased by \$4,319, compared with the average for the 5-year period from 1988 through 1992. When the average earnings for the 5-year period from 1989 through 1993 are compared with the earnings from 1988 through 1992, earnings increased in all areas of the state. The average for the 5-year period from 1989 through 1993 increased 17 percent in northern Illinois, 19 percent in southern Illinois, and 26 percent in central Illinois, as compared to the 1988 through 1992 5-year period.

In 1993, the labor and management income for all areas of Illinois averaged \$34,725 per farm. This figure is \$3,240 below the 1992 state average. Even though returns were below those of the year before,

they still averaged \$7,103 above the average for the 5-year period 1989 through 1993. Higher grain prices and good soybean yields helped stabilize earnings. The average soybean yield on all farms in the study was 45 bushels per acre, only 1 bushel per acre lower than the record yield established in 1992. The average corn yield of 132 bushels per acre equalled the last 5-year average. Gross crop returns of \$329 per tillable acre was actually \$12 per acre higher than the 1992 crop returns. Returns to cattle and dairy producers in 1993 were below 1992 returns, while returns to farrow-to-finish hog producers were slightly higher. Returns were unusually consistent across the central and southern Illinois areas and lower in northern Illinois.

The income or salary of the farm operator—whether tenant or part-owner—is the return for the labor and management provided by the operator. The level of income received is a measure of overall farming efficiency and includes compensation for the risk involved. The income includes the operator's gross sales and the net change in inventory. This income is reduced by operating expenses, depreciation, a charge for unpaid family labor, 7 percent interest on nonland investment, and a land-use charge equivalent to the average net rent received by landowners for crop-share leases from 1989 to 1992.

Whenever the income figures in Table 2 fall below the amounts required for living expenses and income and Social Security taxes, operators must use the charges deducted for interest on equity capital to pay these expenses. If we assume that \$35,000 is needed to pay living expenses and income and Social Security taxes, these figures for 5-year average, labor and management income indicate that to pay these expenses, the average farm operator's family uses between \$0 and \$25,000 of the return for equity capital, depending on the location and type of farm. Using part of the return to equity to pay family living expenses indicates that the farm operator is not receiving a competitive return for either his labor and management or his equity in the business. Off-farm income could be used to pay for some of the family living expenses.

Family living expenditures

Total cash living expenditures for a sample of 467 central Illinois, sole-proprietor, farm-operator families in 1993 averaged \$35,225 (Table 3). This figure is 3 percent higher than the 1992 average. Capital purchases for family living expenses of \$4,996 include the family's share of the auto, plus items that exceed \$250 and will last more than one year. Capital purchases for family living were 12 percent of the total cash outlay for all family living expenditures in 1993.

The average farmer in this sample paid \$14,121 in interest in 1993 on operating, machinery, and long-

Table 3. Average Sources and Uses of Funds Over a 4-Year Period and by Noncapital Living Expenses for Selected Illinois Farms

	All records, average per farm				Family of 3 to 5, 1993*	
	1993	1992	1991	1990	High-third	Low-third
Number of farms	467	452	456	408	95	95
Tillable acres farmed	746	755	731	719	946	631
Acres owned	125	132	131	120	150	96
Farm assets, January 1 ^b	\$432,768	\$426,539	\$381,588	\$358,394	\$532,186	\$332,511
Farm assets, December 31 ^b	450,325	450,722	383,283	384,363	546,960	354,997
Liabilities, January 1	220,410	218,402	198,764	183,161	300,027	178,983
Liabilities, December 31	223,353	229,076	202,708	203,168	298,039	190,263
Net farm income	55,731	55,759	30,596	50,825	68,608	48,950
Source of dollars						
Net nonfarm income	\$ 13,122	\$ 12,166	\$ 12,226	\$ 12,624	\$ 11,533	\$ 11,868
Money borrowed	135,712	144,676	118,446	116,122	192,299	105,162
Farm receipts	220,045	193,259	177,832	180,737	283,806	197,887
Total sources	\$368,879	\$350,101	\$308,504	\$309,483	\$487,638	\$314,917
Use of dollars						
Interest paid	\$ 14,121	\$ 16,006	\$ 15,550	\$ 15,070	\$ 19,708	\$ 11,691
Cash operating expenses	139,570	125,392	111,037	112,943	178,062	129,074
Capital farm purchases	26,946	19,867	22,829	27,834	30,158	29,996
Payments on principal	135,090	134,566	113,510	98,101	197,127	95,941
Income and Social Security taxes	10,504	10,172	11,326	9,444	12,450	7,549
Net new savings and investment	2,427	5,017	-2,646	9,710	-6,845	10,738
Total living expenses	\$ 35,225	\$ 34,336	\$ 32,480	\$ 32,090	\$ 50,704	\$ 25,028
Living — capital purchases	4,996	4,745	4,418	4,291	6,274	4,900
Total uses	\$368,879	\$350,101	\$308,504	\$309,483	\$487,638	\$314,917

^a Records were sorted into thirds according to total noncapital living expenses.

^b Modified-cost basis, except the land value, which was held at the same current value for January 1 and December 31.

term real estate debts. This interest expense was 9 percent of total operating expenses (including interest paid) and 6 percent of total farm receipts, or \$19 per tillable acre farmed in 1993. The average amount of interest paid in 1993 was \$1,885 less than the amount paid in 1992. This is the first time in five years that the amount of interest paid was less than the amount paid in the previous year.

The most significant financial facts about 1993 are as follows:

- Net farm income, plus net nonfarm income, was \$18,128 more than the sum of family living capital purchases, total living expenses, and payments for income and Social Security taxes. This was the second largest this margin has been since the 1970s;
- Liabilities of \$223,353 as of December 31, 1993, were 50 cents for each dollar of farm-only assets, including land at current value and machinery at depreciated value. The 50 cents was the lowest liability for each dollar of any year in the last decade;
- Capital purchases of \$26,946, averaging \$36 per tillable acre, were the second highest for any year during the last decade. That compared to \$31 per tillable acre in 1991 and \$26 in 1992;
- The amount of money borrowed exceeded principal payments for the 5th year in a row, after 3 years in which principal payments exceeded money borrowed;
- The amount of noncapital living expenses per tillable acre farmed was \$47, which was the highest amount in recent years;
- Income and Social Security taxes paid increased by

\$332, and the total amount of taxes paid, \$10,504, was the second largest amount since this study began;

- Medical expenses averaged over \$5,000 for the second year in a row. Since 1990, medical expenses have increased \$976 or 22 percent.

The 1993 records from three- to five-member families were sorted into high one-third and low one-third groups according to the family's total living expenses (Table 3). The total cash living expenses for the high-third group averaged \$50,704, compared with \$25,028 for the low-third group. The high-third group farmed 315 more acres than the other group and owned 16 percent of the land farmed; the low-third group owned 15 percent of the land farmed. The results indicate that the low-third group had more nonfarm taxable income. The high-third group had 57 percent more outstanding debt and a higher net farm income. When net farm income is added to net nonfarm income, and total family living expenses—including capital purchases for family living—and payments for income and Social Security tax are subtracted, the low one-third group had \$12,628 more dollars remaining than the high one-third group.

Living expenses included cash expenditures for food, operating expenses, clothing, personal items, recreation, entertainment, education, transportation, life insurance, contributions, and medical expenses. The sample of 467 farms contained 21 more tillable acres than the average of all the recordkeeping farms in the state. Management was also considered slightly

above average. In view of these factors, average total living expenses for all recordkeeping families (excluding capital purchases) are estimated to be between \$28,000 and \$30,000 or 15 to 20 percent below the average total living expenses of these 467 central Illinois farms. When the \$13,122 net nonfarm income for 1993 is used for living expenses, the remaining \$27,099 must be generated from the farm business to pay the \$40,221 used for total living expenses including family living capital purchases. The figure, \$27,099, amounts to \$36 per tillable acre farmed.

Income changes on Illinois farms

The average operator's net farm income for all farms in 1993 was \$55,895; it was \$54,097 in 1992 (Table 4). Operator net farm incomes decrease steadily as a higher percent of gross farm returns is used to pay interest. On the average, when more than 25 to 30 percent of gross farm returns is used to pay interest, the operator's net farm income is usually negative. Due to the higher incomes in 1993, a net farm income did not become negative until 30 to 35 percent of the gross farm returns were used to pay interest. Interest paid as a part of gross farm returns for all operators averaged 6.9 percent in 1993; 7.9 in 1992; 9.9 in 1991; 8.8 in 1990; and 8.9 in 1989.

Comparative costs and returns between years and among major types of farming operations in northern and central, and in southern Illinois are reported in Tables 5, 7, and 8. The separation of farms into northern and central, and southern Illinois is based on soil-type regions that divide the state approximately on an east-west line from Mattoon to Alton. The sample consisted of grain, hog, beef, and dairy farms having between 340 and 799 acres or an average of 567 acres. Labor available on farms of this size averaged 13 months on grain farms, 23 months on hog farms, 18 months on beef farms, and 26 months on dairy farms. The data in the tables are presented as if the farms were all owner operated. For leased farms, the landlord and tenant shares of the business were combined. Depending on the location, between 55 and 75 percent of the land in Illinois is tenant operated, primarily under crop-share, some cash-rent, and a small number of livestock-share leases.

Size of farm, type of farm, quality of soil, and managerial inputs have been held reasonably constant by the sampling procedure used in selecting farms within each category. Variations among figures for 1992, 1993, and the 5-year average are due to changes in farm prices and to costs, weather, and internal farming adjustments. The data in Tables 5, 7, and 8 are particularly helpful for comparing types of farming and for evaluating changes in farm costs and returns for a particular size and kind of farm. The data do not reflect overall farming adjustments due

to the enlargement of farms or to major changes in the use of resources.

The figure for net farm income comprises returns to the farm family for all unpaid labor, interest on all invested capital, and the managerial inputs used in farming. Changes in the value of farm inventories and that of consumed farm products are included as income. Net farm income is calculated by accounting methods comparable to the accrual method used in calculating taxable farm income for the federal income tax. Two important differences in the accrual method of income tax accounting should be noted: the provision for capital gains on livestock sales, which was in effect until 1987, and the inclusion of interest paid as a farm expense. The operator's share of net farm income, which is listed below total net farm income in many tables, does have the interest expense deducted from it.

The figures for net farm income are the amount available from the farm business for living costs, income and Social Security taxes, debts, new investments, and savings. Interest must also be paid from total net farm income, but not the operator's share because it has already been subtracted. New capital investments for the farm business have been included with total cash expenditures. Although the cash balance reflects the cash position of the farm business, the figure is influenced by purchases and sales of feed and livestock and by changes in liabilities and borrowed funds.

The investment per farm is established as an average of the investments in farm inventory on January 1 and December 31. Physical quantities of grain and livestock are valued at farm market prices. Machinery, buildings, and soil fertility are valued at the remaining capital cost: original cost less depreciation as allowed for income tax deductions to date. Land is priced at current values, with the same value used for the beginning- and end-of-year land inventories. A base land value is established for each farm on the basis of a soil-productivity rating adjusted to a current value each year by using the February index of land prices in Illinois. The procedure used for adjusting the land value is described in the definitions of soil-productivity rating and of the value of land (the current basis) on pages 2 and 3. The annual change in land values represents an adjustment in accounting to bring land values to current market levels. The land adjustment index for 1993 did not change from the index used in 1992.

Northern and central Illinois farms

Grain farms. The net farm income for northern and central Illinois grain farms having 340 to 799 acres and no livestock averaged \$100,201 in 1993, with the operator's and landlord's shares combined (Table 5). This income was \$2,546 above that of 1992 and \$12,613 above the 5-year average income

Table 4. Percent of Illinois Farms and Operator Net Farm Income by Interest Paid as a Percent of Gross Farm Returns, 1989 Through 1993

	Interest paid as a percent of gross farm returns							
	Under 10	10-14.9	15-19.9	20-24.9	25-29.9	30-34.9	35+	All
Percent of farms								
1989	65	15	9	5	3	1	2	100
1990	65	16	9	5	3	1	1	100
1991	59	16	10	6	4	2	3	100
1992	69	16	7	4	2	1	1	100
1993	74	14	6	3	1	1	1	100
Net farm income								
1989	\$51,632	\$42,415	\$31,688	\$23,894	\$14,677	\$ 61	\$- 2,990	\$44,652
1990	56,786	41,803	34,008	27,946	19,210	5,407	-13,768	48,211
1991	36,437	21,663	12,110	3,850	95	-6,907	-30,034	25,502
1992	60,758	50,713	35,264	28,201	11,267	7,738	-19,068	54,097
1993	63,707	43,911	27,908	21,346	9,856	-15,737	-22,561	55,895

from 1989 through 1993. This income was the highest of any during the last decade. The next highest was \$97,655 in 1992. The value of farm production was also the highest of any of the last 10 years, increasing by \$8,748 compared to 1992. The value of farm production, which averaged over \$200,000 for the first time, increased due to a \$14,136 increase in inventory value. Accounts receivable, which is mainly ASCS deficiency payments due, dropped by \$12,494. Net cash operating income increased by \$32,780. Total operating expenses increased by \$1,752. Depreciation expense increased from \$10,908 in 1992 to \$15,358 in 1993. This was a 41 percent increase. Depreciation increased due to more capital purchases and a change in the tax law that increased the amount that can be "expensed" or depreciated in the year of purchase. This was the highest amount of depreciation expense on these farms since 1986.

The main factor causing incomes on northern and central Illinois grain farms to increase as compared to the year before was higher grain prices and good soybean yields. The average soybean yield on these farms in 1993 was 47 bushels per acre, the same as the previous year's yield. The average corn yield was 140 bushels per acre, compared to 162 the year before. Corn was inventoried 70 cents higher at the end of 1993 compared to the beginning, while soybeans were inventoried \$1.25 higher. As a result of the good yields and higher grain prices, the value of grain inventories on these farms increased \$14,136 at the end of the year as compared to the beginning. The decrease in accounts receivable was due to a decrease in accrued deficiency payments from the government farm program. Most farmers continue to participate in the government farm program, setting aside 10 percent of their corn acreage base.

The average price received in 1993 for corn and soybeans was slightly lower than that of the previous year. However, the average price received for old crop corn and soybeans was slightly higher than the inventory price at the beginning of the year. This resulted in a positive marketing margin for corn and

soybeans. Capital purchases of \$18,176 in 1993 were \$4,917 more than in 1992 and \$3,216 above the 1989 through 1993 average. They were at the highest level for this group of farms for any year during the last decade.

While accrual net farm incomes increased \$2,546, net cash incomes increased \$21,806. A major reason for the difference is due to a large accounts receivable decrease, which affects only the accrual income. Management returns were \$18,083, \$3,103 less than 1992 but \$8,441 higher than the 1989 through 1993 5-year average and the second highest for any year during the last decade. The last 5-year average is \$9,642. The rate earned on investment was 6.10 percent, compared with 6.10 percent in 1992 and the last 5-year average of 5.65 percent. This rate earned on investment for grain farms was the third lowest rate earned in 1993 for any type of farm.

A study of the cost to grow corn and soybeans on central Illinois farms is summarized in Table 6. These farms had a soil-productivity index ranging from 86 to 100. The farms used 93 percent of their tillable land to grow corn and soybeans, with 47.3 percent of the acres in corn and 46.1 percent in soybeans. The table compares 1993 costs per acre with the 1992 costs. In 1993, the total cost per acre averaged \$366 for corn and \$300 for soybeans. From 1992 to 1993, it increased 6 percent for corn and 9 percent for soybeans.

Nonland costs of \$1.61 per bushel for corn and \$3.61 for soybeans in 1993 are the most relevant costs for continuing production in the short run, especially where land is free of debt. Total costs to produce a bushel of corn and soybeans increased from 1992 to 1993 due to higher costs per acre. Lower corn yields also increased costs per bushel. Total costs per bushel increased 47 cents for corn and 49 cents for soybeans. If the 1993 yields had been 152 for corn and 48 for soybeans or the same as the average for the period from 1990 through 1993, the total cost per bushel would have been \$2.41

Table 5. Averages for Selected Total Farm Items on 340- to 799-Acre Northern and Central Illinois Grain, Hog, and Beef Farms

	Grain farms			Hog farms			Beef farms		
	1993	1992	1989-1993 average	1993	1992	1989-1993 average	1993	1992	1989-1993 average
Number of farms	703	744	782	177	177	200	42	46	47
Total acres	581	578	575	547	557	552	509	534	524
Soil-productivity rating	86	86	86	80	81	81	78	78	78
Cash operating income	\$ 198,811	\$ 167,197	\$ 172,424	\$ 353,388	\$ 337,375	\$ 338,470	\$ 513,935	\$ 505,538	\$ 530,414
Less purchased feed and livestock ..	374	540	1,399	109,005	112,758	104,738	327,480	335,305	336,728
Net cash operating income	\$ 198,437	\$ 165,657	\$ 171,025	\$ 244,383	\$ 224,617	\$ 233,732	\$ 186,455	\$ 170,233	\$ 193,686
Accounts receivable change	-12,494	8,342	-1,409	-10,660	7,271	-850	-13,328	9,044	-1,613
Inventory change	14,136	17,363	9,983	17,364	14,452	10,856	19,397	23,283	6,547
Farm products used ..	270	239	264	572	528	582	988	955	972
Value of farm production	\$ 200,349	\$ 191,601	\$ 179,863	\$ 251,659	\$ 246,868	\$ 244,320	\$ 193,512	\$ 203,515	\$ 199,592
Total cash operating expenses	87,781	81,306	80,569	122,643	120,251	116,650	101,972	97,551	99,812
Prepaid-unpaid change	-2,991	1,732	-53	-1,677	1,537	-560	-4,357	309	-107
Annual depreciation ..	15,358	10,908	11,759	25,086	23,303	24,502	23,413	17,437	22,026
Net farm income	\$ 100,201	\$ 97,655	\$ 87,588	\$ 105,607	\$ 101,777	\$ 103,728	\$ 72,484	\$ 88,218	\$ 77,861
(Operator's share) ^a ..	(39,863)	(42,895)	(35,553)	(45,506)	(47,112)	(48,068)	(31,917)	(40,560)	(29,334)
Unpaid labor charge ..	18,430	17,796	16,763	21,899	20,703	20,186	20,288	18,848	18,376
Returns to capital and management ..	81,771	79,859	70,825	83,708	81,074	83,542	52,196	69,370	59,485
Interest charge on capital	63,688	58,673	61,183	65,282	63,858	69,021	66,405	65,368	73,406
Management returns ..	\$ 18,083	\$ 21,186	\$ 9,642	\$ 18,426	\$ 17,216	\$ 14,521	\$ -14,209	\$ 4,002	\$ -13,921
Total cash income ^b ..	200,534	167,536	173,976	354,708	338,316	339,687	514,825	507,000	531,334
Total cash expenditures ^b ..	106,083	94,891	96,683	259,012	256,299	248,425	458,195	449,147	459,633
Cash balance	\$ 94,451	\$ 72,645	\$ 77,293	\$ 95,696	\$ 82,017	\$ 91,262	\$ 56,630	\$ 57,853	\$ 71,701
Capital purchases	18,176	13,259	14,960	27,558	23,448	27,207	28,778	16,341	23,132
Farm Investment									
Livestock inventory ..	\$ 187	\$ 172	\$ 187	\$ 96,117	\$ 103,241	\$ 100,529	\$ 226,981	\$ 224,131	\$ 224,828
Grain inventory	122,262	107,182	107,128	101,285	98,576	97,313	92,498	92,376	92,277
Remaining capital cost in:									
Machinery and auto	27,184	25,354	22,452	40,063	42,656	37,289	34,437	35,297	34,867
Buildings and fence	15,716	14,724	16,113	42,333	48,707	48,955	35,544	39,537	44,188
Soil fertility	70	60	62	63	63	107	50	0	536
Value of land (current basis)	\$1,175,009	\$1,162,640	\$1,107,920	\$ 985,014	\$ 998,551	\$ 958,838	\$ 855,482	\$ 887,264	\$ 844,834
Total farm investment	\$1,340,428	\$1,310,132	\$1,253,862	\$1,264,875	\$1,291,794	\$1,243,031	\$1,244,992	\$1,278,605	\$1,241,530
Rate earned on investment, percent	6.10	6.10	5.65	6.62	6.28	6.72	4.19	5.43	4.79

^a Interest expense deducted from operator's share only. Shown in parentheses because it pertains to operator's net farm income only.

^b Includes sales or purchases of capital items.

for corn and \$6.25 for soybeans. These costs do not include a charge for management.

The cost of fertility for soybeans was allocated on the basis of phosphorus, potassium, and lime removals, with the residual allocated to corn. The total unpaid labor charge was based on the labor available. The nonland interest rate was 7 percent of one-half the average of the beginning- and end-of-year inventory values for the crops on hand, plus one-half the cash-operating expenses (excluding interest paid), plus the depreciated value of machinery

and buildings. The adjusted net rent was the average net rent received by crop-share landlords as reported on recordkeeping farms for the period from 1989 through 1993.

Hog farms. The net farm income in 1993 for northern and central Illinois hog farms having 340 to 799 acres averaged \$105,607, with the operator's and landlord's shares combined (Table 5). Net incomes were \$3,830 higher than net incomes in 1992, and \$1,879 higher than the average for the 5-year period from 1989 through 1993. The net farm in-

comes for this group in 1993 were the third highest for any year out of the last 10 years. Earnings for this type of farm were record-high in 1990. Incomes for this type of farm were the second highest for any type of farm in 1993 and for the average of 1989 through 1993. Higher grain prices resulted in a \$17,364 inventory increase in 1993, compared to a \$14,452 increase in 1992. Net cash operating income increased \$19,766. The value of farm production increased 2 percent, and cash operating expenses other than feed also increased 2 percent.

Management returns were \$18,426, an increase of \$1,210 from 1992 returns and \$3,905 above the 5-year average from 1989 through 1993. Capital purchases increased by \$4,110, compared with 1992's purchases, and were \$351 above the 1989 through 1993 average. Cash livestock sales decreased by \$5,084 compared with 1992 figures. The average number of litters farrowed for this group was 242, the second highest ever.

Higher earnings caused the rate earned on investment to increase to 6.62 percent in 1993, compared with 6.28 percent in 1992. This was the highest for any type of farm in northern and central Illinois.

Table 6. Average Cost per Tillable Acre to Grow Corn and Soybeans on Central Illinois Grain Farms with No Livestock

	Corn		Soybeans	
	1993	1992	1993	1992
Number of farms	588	615	588	615
Acres grown per farm...	395	403	385	377
Yield per acre, bu.	151	176	49	49
Variable nonland costs				
Soil fertility	\$ 51	\$ 52	\$ 17	\$ 17
Pesticides	26	24	28	25
Seed	24	24	14	13
Drying and storage	14	14	6	6
Machinery repairs, fuel, and hire	29	26	24	22
Total, variable costs...	\$144	\$140	\$ 89	\$ 83
Other nonland costs				
Labor	\$ 31	\$ 30	\$ 29	\$ 28
Buildings and storage...	7	6	4	3
Machinery depreciation	26	20	22	16
Nonland interest	21	18	19	16
Overhead	14	13	14	13
Total, other costs	\$ 99	\$ 87	\$ 88	\$ 76
Total, nonland costs ..	\$243	\$227	\$177	\$159
Land costs				
Taxes	\$ 20	\$ 20	\$ 20	\$ 20
Adjusted net rent	103	97	103	97
Total, land costs	\$123	\$117	\$123	\$117
Total, all costs	\$366	\$344	\$300	\$276
Nonland cost per bu.	\$ 1.61	\$ 1.29	\$ 3.61	\$ 3.24
Total, all costs per bu. .	\$ 2.42	\$ 1.95	\$ 6.12	\$ 5.63
Average yield, past 4 years	152	150	48	48
Total, all costs per bu. .	\$ 2.41	\$ 2.29	\$ 6.25	\$ 5.75

The 5-year average rate was 6.72 percent, also the highest rate on any type of farm in northern and central Illinois.

Beef farms. The net farm income for northern and central Illinois beef farms having 340 to 799 acres averaged \$72,484 in 1993, with the operator's and landlord's shares combined (Table 5). This figure was \$15,734 lower than the 1992 figure and \$5,377 lower than the average from 1989 through 1993.

Higher prices paid for feeder cattle and lower corn yields contributed to the lower earnings. The average price paid for feeder cattle increased 5 percent in 1993 compared with 1992. The average price received for fed cattle increased 3 percent. Compared with 1992, the value of farm production decreased by \$10,003, or 5 percent. It was \$6,080 below the 5-year average for 1989 through 1993. These farms produced 2,363 hundredweight of beef per farm, or the weight-gain equivalents of 497 head, each gaining 475 pounds.

Management returns of a *negative* \$14,209 in 1993 for these farms were \$18,211 below 1992 returns and \$288 below the 5-year average from 1989 through 1993, which was a *negative* \$13,921. The 1992 management returns were the third highest of any year in the last 10 years. The only years that management returns have been positive in the last 10 years were in 1987, 1990, and 1992. Capital purchases were \$28,778 in 1993 compared to \$16,341 in 1992 and \$23,132 for the 1989 through 1993 average. Capital purchases were the highest in 1993 of any in the last 10 years. Cash operating expenses, excluding purchases of feed and livestock, increased 5 percent. The net cash balance for these farms was \$56,630, or \$1,223 less than in 1992 and \$15,071 below the average for 1989 through 1993. The net cash balance for these farms in 1993 was the lowest for any year out of the last 10 years.

Cost and returns to produce beef from 1990 through 1993, based on a detailed breakdown of individual costs from a selected sample of beef farms, are shown in Table 14. Total costs exceeded total returns in 1993. An analysis of feeder-cattle enterprises is discussed in detail under the livestock section.

The average rate earned on investment decreased from 5.43 percent in 1992 to 4.19 percent in 1993. The 5-year average rate earned on investment from 1989 through 1993 was 4.79 percent. The 1989 through 1993 average rate earned on investment is the lowest for any type of farm. The average total farm investment was \$1,244,992. The average investment in cattle of \$226,981 represents the second highest of any year during the last 10 years.

Farms on which beef cattle are raised or fed continue to compete for resources in Illinois, where nonmarketable resources, such as roughage, labor, and buildings, or very high levels of management are available. Higher feeder cattle prices along with slightly higher feed costs helped decrease returns in 1993 to

feeder-cattle enterprises. In recent years, this type of farm has survived primarily where there are large amounts of debt-free capital that have been combined with very high levels of management.

Dairy farms. The net farm income for northern and central Illinois dairy farms having 340 to 799 acres averaged \$64,156 in 1993, with the operator's and landlord's shares combined (Table 7). This figure was \$20,705 below the 1992 figure and \$18,238 below the 5-year average from 1989 through 1993. The 1993 income was the lowest of any of the last 7 years. The average number of cows on these farms was 69, 5 below the average for 1992.

Lower milk prices, lower crop yields which decreased the value of inventories, and reduced accounts receivable for ASCS deficiency payments resulted in a lower value of farm production and net farm income. The value of farm production was \$204,480, 7 percent below the average for the 5-year period from 1989 through 1993. Cash operating expenses increased 6 percent in 1993 compared to 1992. (A detailed breakdown of the cost of producing milk can be found in Table 16.) Management returns of a negative \$15,158 were \$23,798 below the 1992 figure and \$17,347 below the average for the 5-year period from 1989 through 1993. For the last 10 years, management returns were positive 4 years. Capital purchases decreased to \$19,928 compared to \$26,432 and the 1989 through 1993 average of \$23,891.

The 1993 rate earned on investment for these farms was 3.94 percent; the 1992 rate was 6.16 percent. The 5-year average rate earned on investment was 6.28 percent. The 1993 rate earned on investment was the lowest for any type of farm in Illinois. The average price received for milk in 1993 was 4 percent lower than the average price received in 1992. At the beginning of 1993, milk prices were similar to prices received in 1992 but below 1992 prices during the summer and fall months and higher the last two months. Milk prices received for the first half of 1994 are above those of the first half of 1993. Dairy producers should face more favorable feed costs in 1994 as the growing conditions are better than the wet conditions that were experienced in 1993.

The price received for beef from all cull animals and vealers sold from the dairy herd can be an important factor in determining total returns. When beef prices were high, those sales accounted for as much as 20 percent of the total income from the dairy enterprise. But when beef prices are low, this source of income is only 10 to 12 percent of the total. In 1993, the returns from beef accounted for 15 percent of the total returns to the dairy herd, in comparison with 16 percent in 1992.

Southern Illinois farms

Grain farms. The net farm income for southern Illinois grain farms having 340 to 799 acres averaged

Table 7. Averages for Selected Total Farm Items on 340- to 799-Acre Northern Illinois Dairy Farms

	1993	1992	1989-1993 average
Number of farms.....	59	62	59
Total acres.....	479	470	472
Soil-productivity rating....	70	71	71
Cash operating income...\$	266,637	\$ 256,764	\$ 259,032
Less purchased feed and livestock.....	55,862	53,320	52,054
Net cash operating income.....\$	210,775	\$ 203,444	\$ 206,978
Accounts receivable change.....	-7,690	5,552	-914
Inventory change.....	3,808	9,153	6,364
Farm products used.....	2,587	2,209	2,433
Value of farm production...\$	204,480	\$ 220,358	\$ 214,861
Total cash operating expenses.....	120,169	113,643	110,405
Prepaid-unpaid change....	-1,099	174	-453
Annual depreciation.....	26,254	21,680	22,515
Net farm income.....\$	64,156	\$ 84,861	\$ 82,394
(Operator's share) ^a	(28,590)	(44,927)	(45,603)
Unpaid labor charge.....	25,761	26,661	25,266
Returns to capital and management.....	38,395	58,200	57,128
Interest charge on capital.....	53,553	49,560	54,939
Management returns.....\$	-15,158	\$ 8,640	\$ 2,189
Total cash income ^b	267,586	257,207	260,080
Total cash expenditures ^b	194,169	191,863	184,778
Cash balance.....\$	73,417	\$ 65,344	\$ 75,302
Capital purchases.....	19,928	26,432	23,891
Farm Investment			
Livestock inventory.....\$	123,227	\$ 111,234	\$ 113,859
Grain inventory.....	74,236	66,888	69,510
Remaining capital cost in:			
Machinery and auto.....	47,291	45,006	40,943
Buildings and fence.....	53,504	49,102	53,364
Soil fertility.....	92	79	414
Value of land (current basis).....	675,616	673,092	631,941
Total farm investment.....\$	973,966	\$ 945,401	\$ 910,031
Rate earned on investment, percent....	3.94	6.16	6.28

^a Interest expense deducted from operator's share only. Shown in parentheses because it pertains to operator's net farm income only.

^b Includes sales or purchases of capital items.

\$77,345 in 1993, with the landlord's and operator's shares combined (Table 8). This income is \$3,470 above net farm income in 1992 and \$13,912 above the average from 1989 through 1993. The 1993 income is the highest it has been for any of the last 10 years. Higher grain prices more than offset the drop in yields, resulting in increased cash operating income and a \$12,333 increase in inventories. These increases caused the value of farm production to increase \$16,812, or 11 percent in 1993 compared to 1992. Corn yields were 19 bushels per acre lower and soybean yields were 3 bushels per acre lower in 1993 compared to 1992. Farm operating expenses increased 12 percent, while depreciation expenses increased \$7,231, or 73 percent. Depreciation was at its highest level since 1985. The cash balance of \$64,499 was \$9,176 above the 1992 balance and the

Table 8. Averages for Selected Total Farm Items on 340- to 799-Acre Southern Illinois Grain, Hog, and Dairy Farms

	Grain farms			Hog farms			Dairy farms		
	1993	1992	1989-1993 average	1993	1992	1989-1993 average	1993	1992	1989-1993 average
Number of farms	201	231	233	50	59	72	31	28	35
Total acres	597	585	586	516	567	548	514	499	514
Soil-productivity rating	59	59	60	58	59	59	59	60	59
Cash operating income	\$171,162	\$141,545	\$146,305	\$277,413	\$274,925	\$267,859	\$308,583	\$319,735	\$316,471
Less purchased feed and livestock ..	12,355	8,795	10,269	94,067	92,458	87,314	62,859	74,120	70,455
Net cash operating income	\$158,807	\$132,750	\$136,036	\$183,346	\$182,467	\$180,545	\$245,724	\$245,615	\$246,016
Accounts receivable change	-2,251	1,517	-161	-1,310	747	-69	-1,083	398	-113
Inventory change	12,333	17,828	7,599	14,830	17,624	8,922	10,488	22,042	11,982
Farm products used ..	821	803	891	1,177	1,044	996	1,513	2,694	2,440
Value of farm production	\$169,710	\$152,898	\$144,365	\$198,043	\$201,882	\$190,394	\$256,642	\$270,749	\$260,325
Total cash operating expenses	77,026	68,927	68,956	96,485	98,365	93,484	120,546	125,612	121,647
Prepaid-unpaid change	-1,821	167	-149	-1,329	1,271	-19	161	-3,798	-645
Annual depreciation ..	17,160	9,929	12,125	22,904	17,388	18,741	29,813	24,432	25,725
Net farm income	\$ 77,345	\$ 73,875	\$ 63,433	\$ 79,983	\$ 84,858	\$ 78,188	\$106,122	\$124,503	\$113,598
(Operator's share) ^a ..	(36,424)	(38,531)	(27,284)	(48,937)	(42,903)	(41,760)	(69,927)	(89,481)	(78,527)
Unpaid labor charge ..	19,620	18,325	17,584	24,476	19,640	19,991	28,147	26,384	25,948
Returns to capital and management ..	57,725	55,550	45,849	55,507	65,218	58,197	77,975	98,119	87,650
Interest charge on capital	40,773	36,389	39,265	41,126	42,938	45,165	50,006	48,129	54,204
Management returns \$ 16,952	\$ 19,161	\$ 6,584	\$ 14,381	\$ 22,280	\$ 13,032	\$ 27,969	\$ 49,990	\$ 33,446	
Total cash income ^b ..	172,345	143,349	147,649	278,454	275,333	269,203	309,575	321,354	317,210
Total cash expenditures ^b ..	107,846	88,026	93,073	219,810	205,279	201,980	214,341	229,041	220,880
Cash balance	\$ 64,499	\$ 55,323	\$ 54,576	\$ 58,644	\$ 70,054	\$ 67,223	\$ 95,234	\$ 92,313	\$ 96,330
Capital purchases	19,193	11,007	14,612	29,932	15,173	21,762	31,777	31,061	30,364
Farm Investment									
Livestock inventory ..	\$ 14,630	\$ 13,640	\$ 13,506	\$ 81,350	\$ 78,702	\$ 78,368	\$144,139	\$154,146	\$144,502
Grain inventory	91,779	73,739	72,849	77,084	73,844	69,802	84,799	68,911	71,080
Remaining capital cost in:									
Machinery and auto	31,505	25,449	25,233	30,797	30,664	29,050	54,705	59,299	54,713
Buildings and fence	9,547	8,438	8,629	30,622	30,734	29,656	27,534	28,489	30,682
Soil fertility	42	55	44	46	62	67	0	0	0
Value of land (current basis)	682,845	662,908	647,203	550,185	638,043	578,335	585,876	568,599	565,003
Total farm investment	\$830,348	\$784,229	\$767,464	\$770,084	\$852,049	\$785,278	\$897,053	\$879,444	\$865,980
Rate earned on investment, percent	6.95	7.08	5.97	7.21	7.65	7.41	8.69	11.16	10.12

^a Interest expense deducted from operator's share only. Shown in parentheses because it pertains to operator's net farm income only.

^b Includes sales or purchases of capital items.

highest since 1983, when studies for this type of farm began.

Capital purchases were \$19,193 in 1993, \$8,186 more than 1992 and \$4,581 above the 5-year average for 1989 through 1993. Capital purchases were the highest for any year during the last decade. Capital purchases in 1993 equaled \$35 per tillable acre compared to \$21 per tillable acre in 1992.

Management returns of \$16,952 for these farms were the second highest of any year during the last 10 years. The highest was \$19,161 in 1992. The 5-year average from 1989 through 1993 for manage-

ment returns was \$6,584. The rate earned on investment decreased in 1993 to 6.95 percent; in 1992, this rate was 7.08 percent. This was the lowest rate earned on investment for any type of farm in southern Illinois. The average rate earned on investment for the period from 1989 through 1993 was 5.97 percent, below the average rates for any other type of farm in southern Illinois.

Hog farms. The net farm income for southern Illinois hog farms having 340 to 799 acres averaged \$79,983 in 1993, with the landlord's and operator's shares combined (Table 8). This income was \$4,875

lower than net farm income in 1992 and \$1,795 higher than the average net farm income of \$78,188 earned from 1989 through 1993. Slightly higher hog prices and higher grain prices were the main reasons for the relatively good earnings. The value of farm production was down \$3,839, or 2 percent, in 1993 compared to 1992.

Management returns for 1993 were \$14,381, compared to \$22,280 in 1992 and \$13,032 for the 5-year period from 1989 through 1993. Capital purchases were \$29,932 in 1993, \$14,759 higher than 1992 and \$8,170 higher than the 1989 through 1993 average. Capital purchases were at their highest level for any year during the last decade. Cash operating expenses decreased \$1,880, or 2 percent; depreciation increased \$5,516 and was \$4,163 above the average for 1989 through 1993.

In 1993, the rate earned on investment decreased to 7.21 percent from 7.65 percent in 1992. The average rate earned on investment for the period from 1989 through 1993 was 7.41 percent. The rate earned on investment in this 5-year period for this type of farm was the second highest of any type of participating farm in Illinois. The 1993 rate earned on investment was the second highest of any type of farm.

Dairy farms. The net farm income in 1993 for southern Illinois dairy farms having 340 to 799 acres averaged \$106,122, with the operator's and landlord's shares combined (Table 8). This figure is \$18,381 below the net farm income earned in 1992 and \$7,476 below the average for the period from 1989 through 1993. This net farm income was the highest earned by any type of participating farm of this size in Illinois in 1993. Lower milk prices and lower grain yields caused the value of farm production to decrease by \$14,107 in 1993 compared to 1992. Net cash operating income increased by \$109 in 1993 compared to 1992, while the value of grain and livestock inventories increased by \$10,488. Cash operating expenses decreased \$5,066.

Capital purchases of \$31,777 were \$716 above 1992 capital purchases and \$1,413 above the average capital purchases for 1989 through 1993.

Management returns for this type of farm were \$27,969 in 1993; these returns were \$49,990 in 1992. The 5-year average from 1989 through 1993 was \$33,446. This type of farm had the highest management returns for any type of farm in 1993. The rate earned on investment of 8.69 percent was the highest in the state for this size of participating farm. The average rate earned on investment in 1992 was 11.16 percent, and the 5-year average from 1989 through 1993 was 10.12 percent. The average rate earned on investment by these southern Illinois dairy farms from 1989 through 1993 was the highest of any type of participating farm with 340 to 799 acres in Illinois. In 1993, the average value of bare land on these farms was \$1,244 per tillable acre. On northern

Illinois dairy farms, this value was \$1,685 per tillable acre.

The average number of milk cows per farm in 1993 was 93, compared with 100 in 1992, and with 96, the past 5-year average. The average of 93 cows in 1993 was 24 more than the average on farms of similar size and type in northern Illinois. In 1993, southern Illinois farms decreased the size of their herds by 7 cows over the 1992 herd size, while northern Illinois farms also decreased theirs by 5.

LIVESTOCK ENTERPRISES

The return per \$100 of feed fed from various livestock enterprises and the price of corn during each of the past 15 years are given in Table 9. Fifteen-year and 5-year averages are also shown. The difference between the average return figure and a feed cost of \$100 represents the margin available for labor, depreciation on equipment, cash expenses other than feed, interest on investment, and profit.

The margin needed to cover nonfeed costs varies with the kind of livestock and depends on the proportion of total production costs represented by feed. The 15-year averages from 1979 through 1993 represent the approximate level of return at which farmers have been willing to maintain livestock production. The average may not represent a break-even return on all farms because some farmers may discount market prices for some of the resources used in producing livestock. If farmers already have facilities for livestock, they only need to cover direct operating costs to continue production. However, when livestock production is a new or a long-term enterprise, farmers hope to cover all fixed and variable costs. Otherwise they should not undertake the enterprise.

As individual farmers try to increase profits, they tend to curtail livestock production when the return per \$100 of feed fed is below the 15-year average. This tendency on the part of producers causes supplies of livestock products to fluctuate.

In farrow-to-finish hog production, returns tend to follow a noticeably cyclical pattern (Table 9). They tend to exceed the 5-year average for 1 or 2 years and then drop below this average for 1 or 2 years. Returns per \$100 feed fed of \$174 in 1993 were slightly below the last 5-year average of \$175.

The returns from feeder cattle vary greatly from year to year. The long-run averages shown in Table 10 indicate that the cattle-feeding business has not been paying average market rates for all resources used by the enterprise. The return of \$145 per \$100 feed fed for the most recent 5-year period (1989-93) was slightly below the previous 5-year period but above the 15-year average of \$142 (Table 9). Above-average skills are needed in buying, selling, and feeding to meet the competition from other uses for time and money on farms with feeder cattle. Identifi-

Table 9. Returns per \$100 of Feed Fed to Different Classes of Livestock

Year	Farrow-to-finish hogs	Feeder-pig finishing	Feeder-pig production	Feeder cattle bought	Dairy cow herds	Beef cow herds	Native sheep raised	Yearly price of corn
dollars								
1979	136	106	194	149	220	183	148	2.44
1980	132	122	153	111	207	144	131	2.80
1981	138	115	174	107	200	100	84	2.98
1982	213	165	237	147	205	115	83	2.43
1983	141	118	163	134	178	115	78	3.06
1984	155	140	170	141	188	105	102	3.12
1985	166	129	170	121	202	101	130	2.54
1986	215	178	254	149	210	125	156	2.01
1987	217	168	232	196	237	168	141	1.61
1988	152	127	158	150	198	150	115	2.32
1989	162	141	167	145	209	144	96	2.48
1990	206	165	247	162	220	165	98	2.44
1991	168	128	199	109	188	129	54	2.41
1992	166	140	167	164	211	142	116	2.35
1993	174	133	197	143	191	133	95	2.28
Averages								
1979-1993	170	138	192	142	204	135	109	2.48
1979-1983	153	125	184	130	202	131	105	2.74
1984-1988	181	148	197	151	207	130	129	2.32
1989-1993	175	141	195	145	204	143	94	2.39

Table 10. Variation in Returns to Livestock Enterprise Units, 1989 Through 1993

	Farrow-to-finish hogs (per cwt)	Feeder-pig finishing (per cwt)	Feeder cattle (per cwt)	Dairy cattle (per cow)	Beef herd calves sold (per cow) ^a
Returns above cost of feed and purchased animals					
1989	\$16.71	\$10.20	\$18.66	\$1,334	\$144
1990	27.15	15.79	25.74	1,471	203
1991	17.67	6.80	3.97	1,064	88
1992	16.45	9.39	25.40	1,398	125
1993	18.76	7.89	17.10	1,178	92
Five-year average					
.....	\$19.35	\$10.01	\$18.17	\$1,289	\$130
Nonfeed costs, 1989 through 1993					
Direct cash	\$ 6.65 ^b	\$ 4.20 ^c	\$12.68 ^c	\$ 440 ^c	\$ 30 ^c
Other costs	9.76 ^b	6.60 ^c	10.73 ^c	618 ^c	175 ^c
Total	\$16.41	\$10.80	\$23.41	\$1,058	\$205
Nonfeed cost for future production					
Direct cash	\$ 7.00	\$ 4.35 ^d	\$13.25 ^d	\$ 450	\$ 30
Other costs	16.00	7.00	15.00	800	200
Total	\$23.00	\$11.35	\$28.25	\$1,250	\$230

^a The feed cost for beef herds includes up to \$60 of hay equivalent from salvage roughage.

^b Estimates of annual nonfeed costs are based on enterprise cost studies of operative units from 1989 to 1993.

^c Includes veterinary costs, utilities, fuel, equipment repair costs, and depreciation, from *Crop and Livestock Budgets, Examples for Illinois, 1993-1994* (AE-4700, April 1993).

^d Includes interest on purchase cost: one-third year for feeder-pig finishing, and one-half year for feeder cattle.

fying cyclical income movements over a 15-year period in the beef-cattle industry is difficult because this industry is more complex and adjusts more slowly than other livestock enterprises.

The returns above feed costs for dairy enterprises of \$1,178 per cow in 1993 were \$111 below the 5-year average of \$1,289 (Table 10). These returns indicate that the average dairy enterprise has covered the total estimated cost of production of \$1,058 per cow from 1989 through 1993.

For the beef-herd enterprise, the average returns above the cost of feed for the period from 1989

through 1993 provided a margin over cash costs, but fell short of the return needed to cover all nonfeed costs (Table 10). The implication is that the beef enterprise competes most favorably on farms where the resources of labor, capital, and management are plentiful and have few alternate uses. In the beef-cow enterprise, returns above the cost of feed per cow averaged \$130 during the last 5 years. The 1993 returns of \$92 were \$113 below the total costs, estimated at \$205 per cow. The 1993 returns to the beef-cow enterprise were the second lowest during the past 5-year period.

Raising livestock has become more competitive. Average profit margins are narrow. Fewer farmers are willing to stay in business because returns in some enterprises barely cover direct operating costs. Plans for expansion that require large investments for new facilities should be based on an estimated return that is high enough to cover all costs. Fluctuations in livestock returns can involve a risk in low-return years. The estimated nonfeed cost for future livestock production is also shown in Table 10.

Hog enterprises

The information on farrow-to-finish enterprises in Table 11 is based on a sample of 580 enterprises farrowing 10 litters or more per year. Farms were omitted from the sample if the number of hogs purchased exceeded 10 percent of the pigs weaned. This procedure eliminated from the sample those farms with combined farrowing and feeder-pig operations. (Information on feeder-pig finishing enterprises is given in Table 13.) The average size of farrow-to-finish enterprises on all recordkeeping farms was 242 litters in 1993. The 1993 records summarized here for the "all farms" group show that returns of \$18.76 above feed costs per 100 pounds of pork produced were \$2.31 above the 1992 return of \$16.45.

The 5-year average for returns above feed costs per 100 pounds produced was \$19.35 (Table 10). Even the 5-year average can vary significantly because of the wide fluctuations in returns from year to year. Detailed cost records show that an average farmer with existing facilities needed a return above feed costs of \$16.41 per 100 pounds to pay for all nonfeed costs during the past 5 years. The return above all costs during this 5-year period of \$2.94 (\$19.35 minus \$16.41) has led to expansion in the industry. Large integrators have expanded very rapidly. The near future will bring increased pork production and lower hog prices. Producers must assess their own financial situation and production capabilities very closely to determine the amount of risk they can assume if they expand their production with borrowed capital.

The farrow-to-finish enterprise records for 1993 reported in Table 11 were also sorted by the number of litters produced. One group farrowing 350 or

Table 11. Hog Enterprises, 1993 Averages per Farm

	Farrow-to-finish enterprises		Feeder-pig production
	All farms	350 or more litters per farm	
Number of farms.....	580	111	21
Pork produced, pound	470,642	1,211,445	175,649
Pork produced per litter, pound.....	1,944	1,910	688
Total returns.....	\$206,933	\$539,081	\$109,442
Value of feed fed.....	\$118,592	\$290,988	\$55,660
Returns per \$100 of feed fed.....	\$ 174	\$ 185	\$ 197
Number of litters farrowed.....	242	634	255
Pigs farrowed per litter.....	9.67	9.69	10.28
Pigs weaned per litter...	8.14	8.23	8.58
Litters farrowed per female year.....	1.87	2.03	1.88
Pigs weaned per female year.....	15.24	16.56	16.44
Number of pigs weaned.....	1,970	5,218	2,188
Death loss, percent of pounds produced....	1.9	1.9	2.5
Weight per market hog sold, pound.....	241	239	47
per 100 pounds produced			
Price received—market.....	\$ 46.49	\$ 47.23	\$ 90.08
Total return.....	\$ 43.96	\$ 44.49	\$ 62.30
Feed cost.....	\$ 25.20	\$ 24.02	\$ 31.69
Return above feed....	\$ 18.76	\$ 20.47	\$ 30.61
Farm grains, pound..	280	270	254
Commercial feed, pound.....	87	86	124
Total concentrates, pound.....	367	356	378
Cost per 100 pounds of commercial feed...	\$ 15.80	\$ 15.01	\$ 17.15
Cost per 100 pounds of concentrates.....	\$ 6.86	\$ 6.73	\$ 8.35

more litters averaged 634 litters. Compared with the average feed cost for all farrow-to-finish enterprises, the feed cost per 100 pounds of pork produced was \$1.18 lower for the 634-litter group. The large producers paid \$15.80 less per ton for commercial feed and had slightly better feed conversion. The prices received for hogs sold by large producers or the net at the farm was 74 cents higher than the net received by all producers.

A summary of the feeder-pig production enterprises is also reported in Table 11. In 1993, the average enterprise in this group produced 255 litters with a return of \$197 per \$100 of feed fed. On an average, 8.6 pigs per litter were weaned and sold at 47 pounds per head. The 1993 average price received per 100 pounds of feeder pigs sold was \$90.08 or \$42.34 per head. The average feed cost per 100 pounds of pork produced (pigs and breeding stock) was \$31.69 for 378 pounds of concentrate.

A substantial profit margin is required to com-

pensate for the risk and detailed management involved in hog production compared with other resource uses. Large-scale hog production in modern confinement facilities requires high capital investments. The future recovery of this capital investment is uncertain. The salvage value of confinement hog facilities is low. In addition, acquiring the managerial skills for the large-scale production of hogs in confinement may discourage any rapid expansion of large hog-producing units. However, the level of profits in recent years has resulted in an increase in production. Pork production for 1994 is projected to be at record levels. Although improvements in production efficiency and some increase in consumer demand have helped offset lower prices due to increased production, future returns will depend to a great extent on whether producers continue to increase production or liquidate some of the breeding herd.

The data on hog enterprises in Table 12 show a detailed breakdown of costs and returns from a group of specialized commercial hog farms for 1991, 1992, and 1993. The value of the feed fed to hogs was more than 75 percent of the crop returns produced on these farms. This intensity of livestock feeding indicates a commitment of major resources to the hog enterprise. The producers in this group probably exercise a higher level of management and use more confinement production facilities than the average hog producer in Illinois.

The hog enterprise records summarized in Table 12 were sorted by the number of litters produced. The group farrowing fewer than 250 litters averaged 149 litters from 1991 to 1993; the group farrowing 250 or more litters averaged 491 litters during the same period.

The cost data reported in Table 12 have been divided into two categories: cash costs and other costs. This classification of production costs is important when short-term management decisions are being made concerning the volume of production, particularly during periods of low prices.

As reported in Table 12, cash costs of production in 1993 ranged from \$31.74 to \$31.89 per 100 pounds of pork produced, depending on the grouping size. Feed is included as a cash cost although for most producers a major share of the grain is raised on the farm. The readily available alternative cash market for grain makes the raised feed the same as cash.

The other category of costs includes depreciation, labor, and an interest charge on all capital. Part of the labor and interest charge is a cash cost on most farms. The proportion of labor that is hired depends largely on the size of the farm. A one-person farm does not hire much labor, whereas a major share of the labor will be hired on a four-person farm.

While most categories of nonfeed costs did not change much, labor and depreciation increased for both groups of enterprises in 1993. This is a reflection of higher labor costs and increased investment into

Table 12. Average Costs and Returns for Farrow-to-Finish Hog Enterprises by Size of Enterprise, 1991 Through 1993

	Under 250 litters			250 litters or more		
	1993	1992	1991	1993	1992	1991
Number of farms	36	41	52	94	92	101
Tillable acres	207	231	255	485	504	564
Number of litters	138	155	155	511	466	495
----- per 100 pounds of pork produced -----						
Total returns.....	\$ 44.14	\$ 40.36	\$ 42.88	\$ 44.96	\$ 42.01	\$ 44.46
Cash costs						
Feed	\$ 26.35	\$ 25.93	\$ 26.61	\$ 25.18	\$ 24.39	\$ 25.02
Operating expenses:						
Maintenance and power ^a	2.95	3.03	3.80	3.20	3.18	3.96
Livestock expenses	1.61	1.63	1.99	2.36	2.38	2.24
Insurance, taxes, and overhead .....	.98	1.14	1.05	1.00	1.27	1.02
Total operating expenses	\$ 5.54	\$ 5.80	\$ 6.84	\$ 6.56	\$ 6.83	\$ 7.22
Total cash costs	\$ 31.89	\$ 31.73	\$ 33.45	\$ 31.74	\$ 31.22	\$ 32.24
Other costs						
Depreciation ^b	\$ 2.58	\$ 2.23	\$ 1.84	\$ 3.30	\$ 2.74	\$ 2.34
Labor	4.43	4.18	4.33	4.09	3.84	4.28
Interest charge on all capital	2.53	2.54	3.20	2.49	2.51	3.25
Total other costs	\$ 9.54	\$ 8.95	\$ 9.37	\$ 9.88	\$ 9.09	\$ 9.87
Total nonfeed costs	\$ 15.08	\$ 14.75	\$ 16.21	\$ 16.44	\$ 15.92	\$ 17.09
Total all costs	\$ 41.43	\$ 40.68	\$ 42.82	\$ 41.62	\$ 40.31	\$ 42.11
Return above all costs	\$ 2.71	\$ -.32	\$.06	\$ 3.34	\$ 1.70	\$ 2.35

^a Includes utilities, machinery, equipment and building repairs, machine hire, and fuel.

^b Includes machinery, equipment, and building depreciation.

Table 13. Feeder-Cattle and Feeder-Pig Finishing Enterprises, 1993 Averages per Farm

	Feeder cattle	Feeder-pig finishing
Number of farms	183	158
Total pounds produced	185,404	161,795
Total returns	\$105,733	\$ 51,945
Value of feed fed	\$ 74,033	\$ 39,185
Returns per \$100 of feed fed	\$ 143	\$ 133
Death loss, percent of pounds produced	2.0	2.1
Average weight purchased	663	51
Price paid per 100 pounds	\$ 85.85	\$ 92.85
Price received per 100 pounds	\$ 75.59	\$ 45.76
Average weight sold	1,138	246
per 100 pounds produced		
Total returns	\$ 57.03	\$ 32.11
Feed cost	\$ 39.93	\$ 24.22
Return above feed	\$ 17.10	\$ 7.89
Farm grains, pound	625	294
Commercial feeds, pound	42	80
Total concentrates, pound	667	374
Hay, pound	58	...
Corn silage, pound	444	...
Other silage, pound	103	...
Hay equivalent, pound	251	...

^a Data not available.

production facilities and equipment. Total nonfeed costs increased 33 cents per 100 pounds of pork produced (3 percent) for the small enterprises and 52 cents (2 percent) for the large enterprises from 1992 to 1993. For both groups, both total operating expenses decreased and total other costs increased. With slightly higher feed costs, the total cost of

production increased from 1992 to 1993 by 75 cents per 100 pounds of pork produced for the group of small enterprises and \$1.31 for the large enterprise group.

The most significant cost difference between the two groups of farms was the feed cost. The average feed cost for 1991, 1992, and 1993 per 100 pounds of pork produced for the large enterprises was \$1.44 lower than it was for the small enterprises. This difference in feed cost was an average of about \$14,000 per farm with the larger enterprises. Differences in the amount of feed used per 100 pounds of pork produced and the price paid for commercial feeds caused this difference in feed costs.

From 1991 through 1993, the returns above all costs averaged 82 cents per 100 pounds of pork produced for the small enterprises and \$2.46 for the large enterprises—a difference of \$1.64. Management practices, such as the choice of building systems, method of transporting hogs to market, type of market used, and on- versus off-farm systems for feed-processing affect the individual cost items reported in Table 12. But the return above all costs should accurately reflect the relative efficiency of the two groups of hog enterprises.

Feeder-cattle and feeder-pig finishing enterprises

Data for 1993 on the feeder-cattle and feeder-pig finishing enterprises are presented in Tables 13 and 14. These enterprise summaries include weights and values on partly finished animals purchased in

Table 14. Average Costs and Returns for Beef-Feeding Enterprises, 1990 Through 1993

	1993	1992	1991	1990	1990-1993 average
Number of farms	26	28	34	36	31
Tillable acres	536	625	571	610	586
Hundredweight beef produced.....	3,255	3,694	3,069	3,585	3,401
Number head @ 475-pound gain equivalents.....	685	778	646	755	716
Average weight purchased, pound	670	673	665	654	666
Average weight sold, pound	1,164	1,163	1,180	1,133	1,160
Price received per 100 pounds sold.....	\$ 76.11	\$ 74.12	\$ 72.66	\$ 76.77	\$ 74.92
Price paid per 100 pounds purchased	\$ 87.05	\$ 82.79	\$ 88.11	\$ 86.65	\$ 86.15
per 100 pounds of beef produced					
Cash costs					
Feed ^a	\$ 39.99	\$ 38.44	\$ 41.17	\$ 40.09	\$ 39.92
Operating expenses:					
Maintenance and power ^b	3.95	3.25	3.81	3.71	3.68
Livestock expense	2.68	2.38	2.32	2.25	2.41
Insurance, taxes, and overhead	1.79	1.15	1.30	1.18	1.36
Interest on cattle ^c	5.99	6.09	7.46	8.47	7.00
Total operating expenses	\$ 14.41	\$ 12.87	\$ 14.89	\$ 15.61	\$ 14.45
Total cash costs	\$ 54.40	\$ 51.31	\$ 56.06	\$ 55.70	\$ 54.37
Other costs					
Depreciation ^d	\$ 4.84	\$ 3.18	\$ 3.76	\$ 4.05	\$ 3.96
Labor	2.49	2.66	2.61	2.20	2.49
Interest on other capital	2.33	2.37	2.44	2.65	2.45
Total other costs	\$ 9.66	\$ 8.21	\$ 8.81	\$ 8.90	\$ 8.90
Total all costs	\$ 64.06	\$ 59.52	\$ 64.87	\$ 64.60	\$ 63.27
Total returns ^e	\$ 57.05	\$ 63.50	\$ 45.65	\$ 67.23	\$ 58.36
Return above all costs.....	\$ -7.01	\$ 3.98	\$ -19.22	\$ 2.63	\$ -4.91

^a All grain fed was priced at the average market price for the year. Market values were used for roughage fed while protein and minerals were charged at cost. All the feed fed is assumed to have been marketable.

^b Includes utilities, machinery, equipment and building repairs, machine hire, and fuel.

^c Interest is a charge on the average value of beginning and end-of-year inventories on hand. The rate was 10 percent for 1990, 9 percent for 1991, and 7 percent for 1992 and 1993.

^d Includes machinery, equipment, and building depreciation.

^e Sales less cost of purchased animals, plus or minus inventory value change. No credit has been calculated for reduced fertility cost when manure is applied to crops.

previous years and on animals purchased during the current year.

The average amount of pork produced per farm from feeder-pig enterprises was 161,795 pounds in 1993 (Table 13). At 195 pounds of gain per head, this figure amounted to 830 head fed per farm in 1993, down from the 859 head fed per farm in 1992.

The return above the cost of feed and purchased animals from 1989 through 1993 averaged \$10.01 per 100 pounds of gain. This return was 79 cents below the \$10.80 of all nonfeed costs for the past 5 years. It is also below the estimated \$11.35 required to cover all costs for future production (Table 10).

Given that a 475-pound unit of gain equals one head of feeder cattle, the average of 185,404 pounds of beef produced per farm in 1993 (Table 13) equals 390 head of feeder cattle per farm. That figure is an increase of 35 from the average of 355 head fed per farm in 1992. The return per \$100 of feed for feeder-cattle enterprises was \$143 in 1993 in comparison with a 5-year average of \$145 and a 15-year average of \$142 (Table 9).

The price paid for feeders was \$4.21 per 100 pounds higher in 1993 than it was in 1992; the price received for cattle sold in 1993 was \$2.18 higher per 100 pounds than the price received in 1992. The average weight of purchased animals was 663 pounds; the average weight of animals sold was 1,138 pounds.

Feed cost was \$39.93 per 100 pounds produced in 1993; it was \$39.11 in 1992.

Each 100 pounds of beef produced required 667 pounds of concentrates and 58 pounds of hay. The amount of corn silage used in 1993 averaged 444 pounds; other silage averaged 103 pounds, making a total of 547 pounds. Silage utilization by the feeder-cattle enterprise has decreased the last 5 years since the 10-year average for the period from 1977 through 1986 reached 906 pounds per 100 pounds of beef produced. The use of 547 pounds per 100 pounds of beef produced in 1993 was the smallest amount fed since 1963. The high initial investment required for many silage feeding operations and a slowdown in capital purchases may denote more reliance on higher concentrate and dry roughage facilities.

These data do not show the wide variation in profits among cattle-feeding programs. The data on Illinois feeder-cattle enterprises in Tables 9, 10, and 13 reflect the composite results of all qualities and ages of cattle fed. The data are heavily weighted, with good-to-choice calves and yearlings as the predominant cattle-feeding system. Most farmers now feed more than one drove of cattle each year to better utilize their fixed investments in mechanized feedlots.

The return above the cost of feed and purchased animals averaged \$18.17 per 100 pounds of beef produced from 1989 through 1993 (Table 10). Dur-

ing this period, returns ranged from \$3.97 in 1991, to \$25.74 in 1990. The returns above feed costs have remained below the estimated costs required to pay for all nonfeed costs for the average cattle feeder in 3 of the last 5 years. The 1992 returns above feed cost of \$25.40 were the third highest since 1975. The 1991 returns were the lowest since 1981.

The data on feeder-cattle enterprises in Table 14 show a detailed breakdown for the period from 1990 through 1993 on cost and returns to produce beef on beef-feeding farms. The farms included had no other livestock. All costs were accounted for either in crops or in the beef-feeding enterprise. The figure for feed costs is based on the assumption that all the grain and roughage fed was produced on the farm and was marketable.

The data show that these farms were finishing an average of 716 feeders each year from 1990 through 1993. The 4-year average total cash cost including feed and interest charged on cattle was \$54.37 per 100 pounds of beef produced. The average total return of \$58.36 for the same period exceeded total cash costs by \$3.99 per 100 pounds produced, or about \$19 per feeder.

Some feeders may be able to discount some of these cash costs for roughage fed and for interest on cattle if they had no market for the roughage or were able to use their own money invested in cattle without paying interest. Other costs of \$8.90 per 100 pounds of beef produced or \$42 per feeder (\$8.90 multiplied by 4.75 hundredweight of gain per feeder) include depreciation, labor, and interest. Adding the other costs to cash costs results in total costs of \$63.27 per hundredweight over the 4-year period.

A number of cattle feeders in Illinois apparently will feed cattle if their return covers feed and cash costs but is short of paying market rates for some nonmarketable roughage, and fixed and overhead costs. But this number is expected to decline.

Farmers' values, goals, and attitudes have been important in maintaining production; but the dictates of the market, technological changes, and shifts in the basic factors of supply and demand continue to cause changes. The return reflected in these averages for the feeder-cattle enterprise suggests that to be profitable, farmers must produce the kind of beef the consumer wants at the lowest possible cost. Even though farms may have nonmarketable feeds, unemployed labor, or fixed capital investments in facilities, these data indicate returns are not consistently high enough to justify the building of new facilities.

Dairy enterprises

The minimum size for a herd included in this analysis was 10 milk cows. The average herd size on recordkeeping farms increased steadily at an average of 1.8 cows per year from 42 in 1970 to 63 in 1982.

The herd size has remained steady, between 63 and 69 cows, since 1982.

The return per \$100 of feed fed to dairy cattle in 1993 was \$191. The average for the period from 1989 through 1993 was \$204 (Table 9). In 1993, milk prices per hundredweight decreased 4 percent from 1992 but were 7 percent above prices received in 1991. From 1992 to 1993, beef prices for all weights sold decreased \$1.01 per hundred pounds, while feed costs increased \$3.00 per unit of milk or beef produced.

Dairy farmers have reduced the amount of pasture and dry hay and have increased the amounts of grain and silage fed over the past two decades. Pasture days per animal unit dropped from 145 in 1960, to 50 in 1970, to 8 in 1993. This shift indicates that

Table 15. Dairy Cattle Enterprises, 1993 Averages per Farm

	All farms	Efficiency	
		High ^a	Low ^b
Number of farms.....	169	59	57
Number of cows.....	68.5	68.6	63.4
Milk cows dry, percent.....	14.3	14.4	13.7
Animal units in herd.....	128	133	115
Total returns.....	\$169,283	\$197,168	\$128,893
Value of feed fed.....	\$ 88,567	\$ 90,198	\$ 78,694
Returns per \$100 of feed fed.....	\$ 191	\$ 219	\$ 164
Returns above feed per cow.....	\$ 1,178	\$ 1,559	\$ 791
Total milk produced, 100 pounds.....	11,625	12,893	9,314
Pounds of milk per cow.....	16,970	18,794	14,690
Pounds of butterfat per cow.....	633	687	555
Total beef produced, pound.....	43,501	50,885	35,655
Pounds of beef per cow.....	635	741	562
Death loss, percent of pounds produced.....	11.3	8.1	15.7
Price received for:			
100 pounds of milk.....	\$ 12.53	\$ 12.63	\$ 12.32
100 pounds of beef.....	\$ 59.53	\$ 60.43	\$ 58.65
Per unit of milk and beef: ^c			
Feed cost.....	\$ 55.44	\$ 50.16	\$ 61.10
Grain, pound.....	322	281	380
Protein and minerals, pound.....	119	118	117
Total concentrates, pound.....	441	399	497
Hay and dry roughage, pound.....	232	187	301
Corn silage, pound.....	542	486	605
Other silage, pound.....	433	347	538
Pasture days..... ^d	...	...	...
Pasture days per animal unit.....	8	11	8
Hay equivalent per cow, ton.....	7.2	6.8	7.7
Concentrates per cow, pound.....	10,284	10,455	10,094

^a High one-third return above feed per cow exceeds 1,295.

^b Low one-third return above feed per cow is below 965.

^c 1,000 pounds of milk or 100 pounds of beef.

^d No significant pasture use.

Table 16. Average Milk Production Costs and Returns by Size of Herd, 1991 Through 1993

	40 to 79 cows in herd			80 or more cows in herd		
	1993	1992	1991	1993	1992	1991
Number of farms	69	81	80	46	52	59
Tillable acres.....	270	269	259	411	426	522
Number of cows.....	58.2	58.9	57.6	105.1	106.2	107.9
Milk per cow, pound.....	16,657	16,883	16,789	17,494	17,807	17,056
----- per 100 pounds of milk produced -----						
Price received.....	\$ 12.79	\$ 13.25	\$ 11.82	\$ 12.53	\$ 13.07	\$ 11.90
Cash costs						
Feed	\$ 6.65	\$ 6.35	\$ 6.23	\$ 6.43	\$ 6.08	\$ 6.02
Operating expenses:						
Maintenance and power ^a	1.30	1.20	1.17	1.28	1.28	1.35
Livestock expense.....	1.27	1.18	1.13	1.28	1.12	1.13
Insurance, taxes, and overhead .....	.19	.21	.26	.22	.21	.26
Total operating expenses.....	\$ 2.76	\$ 2.59	\$ 2.56	\$ 2.78	\$ 2.61	\$ 2.74
Total cash costs	\$ 9.41	\$ 8.94	\$ 8.79	\$ 9.21	\$ 8.69	\$ 8.76
Other costs						
Depreciation ^b	\$.83	\$.73	\$.61	\$.74	\$.63	\$.67
Labor.....	1.71	1.66	1.59	1.48	1.36	1.49
Interest charge on all capital.....	1.23	1.22	1.34	1.00	.97	1.30
Total other costs.....	\$ 3.77	\$ 3.61	\$ 3.54	\$ 3.22	\$ 2.96	\$ 3.46
Total nonfeed costs.....	\$ 6.53	\$ 6.20	\$ 6.10	\$ 6.00	\$ 5.57	\$ 6.20
Total all costs.....	\$ 13.18	\$ 12.55	\$ 12.33	\$ 12.43	\$ 11.65	\$ 12.22
Return above all costs.....	\$ -.39	\$.70	\$ -.51	\$.10	\$ 1.42	\$ -.32

^a Includes utilities, machinery, equipment and building repairs, machine hire, and fuel.

^b Includes machinery, equipment, and building depreciation.

significant pasture days are a thing of the past on nearly all dairy farms in this sample.

The dairy herds in Table 15 were subdivided into two groups according to their efficiency as measured by returns above the cost of feed per cow. In comparison with the low-efficiency group, the high-efficiency group had more cows in the herd, and 97 percent higher returns above feed per cow. Returns above feed per cow for the high-efficiency group were \$1,559 and \$791 for the low-efficiency group. For the high-efficiency group, two factors were most significant: 28 percent higher milk production per cow—an average of 18,794 pounds, compared with an average of 14,690 pounds for the low-efficiency group—and an 18 percent lower feed cost per unit of milk and beef produced.

The average return above feed costs per cow for all dairy herds was \$1,178 in 1993 (Table 15). This figure compares with the 5-year average of \$1,289 per cow (Table 10). The 5-year average return above feed cost required to pay market prices for all nonfeed costs is estimated to be about \$1,058 per cow. The estimated return above feed costs currently required to attract new investments for dairy herds is about \$1,250 per cow. Although the number of dairy herds has decreased, their size and efficiency have increased, and they have continued to increase the milk supply. Normal depreciation and wear-and-tear will soon require the reinvestment of greater amounts of capital in some of these businesses.

The data in Table 16 on dairy enterprises show a detailed breakdown of milk production costs and

returns for dairy farms by the number of cows in the herd in the period from 1991 through 1993. The farms included had no other livestock. All costs were accounted for either in crops or in the dairy enterprise. The total costs for the dairy enterprise were reduced by the amount of income derived from an inventory increase in the pounds of beef produced or from sales, which was valued at the average price received for all weights of dairy animals sold from 1989 through 1993. The residual costs, amounting to 86 percent of the total enterprise costs, were then considered as the net cost of producing milk.

The differences between the herds containing 40 to 79 cows and those containing 80 or more cows for the period from 1991 through 1993 appear to be narrowing. This is probably due to the smaller, lower-efficiency herds exiting the dairy enterprise. For the 3-year period, the milk price for the larger herds averaged 16 cents less, while total nonfeed costs per 100 pounds of milk sold were 36 cents lower. The major cost difference was 21 cents less for labor on the large farms.

In 1993, feed costs per 100 pounds of milk produced increased for both groups. The cost of feed averaged about 50 percent of total production costs in Illinois dairy enterprises. Total nonfeed costs increased 5 percent for the small dairy herds and 8 percent for the large dairy herds when compared with costs in 1992. The total cost of producing 100 pounds of milk in 1993 was \$13.18 for the small herds and \$12.43 for the large herds. The average price received for milk in 1993 decreased for both groups of dairy

Table 17. Beef-Cow Enterprises, 1993 Averages per Farm

	All farms	Calves sold	Calves fed out
Number of farms	226	79	55
Number of cows in herd	44	44	46
Animal units in herd.....	67	56	76
Total pounds produced.....	32,981	21,056	50,283
Beef per cow in herd, pound	750	478	1,093
Total returns	\$22,465	\$15,287	\$32,736
Value of feed fed	\$16,944	\$11,731	\$22,613
Returns per \$100 of feed fed.....	\$ 133	\$ 130	\$ 145
Returns above feed per cow	\$ 125	\$ 80	\$ 220
Death loss, pound	1,716	1,610	1,635
Percent of pounds produced	5.2	7.6	3.2
Weight per market animal sold, pounds.....	809	514	1,074
Price received per 100 pounds sold — market animal	\$ 78.59	\$ 88.64	\$ 73.00
per 100 pounds produced			
Feed cost.....	\$ 51.37	\$ 55.71	\$ 44.97
Grain, pound.....	258	135	290
Protein and minerals, pound	36	32	32
Total concentrates, pound	294	167	322
Hay and dry roughage, pound	691	930	497
Corn silage, pound.....	358	256	338
Other silage, pound	67	37	79
Pasture days.....	30	43	20
Pasture days per animal unit	150	164	137
Hay equivalent per cow, tons.....	5.9	5.0	6.2

Table 18. Sheep Enterprises, 1993 Averages per Farm

	Native flocks
Number of farms	38
Wool and mutton produced, pound	6,629
Total returns	\$3,124
Value of feed fed	\$3,276
Returns per \$100 of feed fed	\$ 95
Percent lamb crop	148
Death loss, pound	623
Percent of pounds produced	9.4
per 100 pounds produced	
Price received	\$50.78
Feed cost	\$49.42
Concentrates, pound	360
Hay, pound	543
Corn silage, pound	0
Pasture days	20
Hay equivalent, pound.....	1,028

grew to about 40 cows per herd and remained stable through 1989. The herd size increased to 44 cows in 1993. Most Illinois farmers who maintain a beef-cow herd do so as a supplemental enterprise to market nonsalable feeds and labor.

The return per \$100 of feed fed to beef-cow herds averaged \$133 in 1993. The return for the 5-year period from 1989 through 1993 averaged \$143, which is above the 15-year average of \$135 for the period from 1979 through 1993 (Table 9). Beef prices received in 1993 averaged \$78.59 per hundredweight, an increase of 24 cents over beef prices in 1992. Feed costs per 100 pounds of beef produced decreased by only 2 cents to \$51.37 in 1993.

Since 1989, the return above feed cost per cow for the average farmer to feed out calves rather than to sell them at weaning has been about \$95 per cow. Additional returns are needed for the added costs of labor, buildings, and the capital required to feed out the calves. In 1993, return above feed cost for feeding calves to market weight was \$140 more per cow than for selling calves.

Sheep enterprises

Sheep production is a minor enterprise on Illinois recordkeeping farms. The minimum size of enterprise in Table 18 is 3 animal units. One animal unit of sheep is defined as 750 pounds, liveweight. The return per \$100 of feed fed in 1993 was \$95 for native flocks. The returns per \$100 of feed fed have been less than \$100 for 4 out of the last 5 years. The pounds of wool and mutton produced per farm have remained fairly constant for the past 10 years. The price received for sheep increased from \$48.51 per hundredweight in 1992 to \$50.78 in 1993, while feed costs per hundredweight produced increased by \$6.94 to \$49.42. Most Illinois farmers who keep sheep do so as a supplemental enterprise in order to market nonsalable feeds and labor.

enterprises. The lower milk prices and higher costs resulted in returns above total production costs of a *negative* 39 cents and 10 cents, respectively, for both the small and large enterprise groups in 1993. The returns above all costs for the large-herd group have averaged per 100 pounds of milk produced 47 cents more than the returns for the small-herd group from 1991 through 1993. This amounts to \$8,222 more in returns per farm per year for herds in the large-size group. Due to lower milk prices and higher costs, returns to dairy farmers declined in 1993 and were below the average for the last 5 years.

Beef-cow herds

The minimum size for a beef-cow herd included in Table 17 was 10 cows. Farms combining cow herds and purchased feeder cattle were not included. In addition to all farms, Table 17 gives an analysis of cow herds in which calves were sold at weaning time and compares them with cow herds in which calves were finished to slaughter weights. From 1956 through 1969, the average size of the herd on all farms ranged from 25 to 30 cows. From 1969 to 1973, the average

Costs, returns, financial summaries, investments, land use, and crop yields for different sizes and types of Illinois farms are reported in Tables 19 to 27a.

Table 19. 1993 Average Return, Costs, and Financial Summary by Size and Management Returns for Northern and Central Illinois Grain Farms with Soil Ratings from 86 to 100

Range in size (total acres)	180-339	340-799	800-1199	Over 1199	Your Farm	All Farms	Low 25% 105	High 25% 105
Management returns	56	419	241	140		856		
Number of farms	277	577	976	1,603		838	532	650
Total acres in farm	268	558	943	1,549		809	512	634
Acres of tillable land	92	92	92	92		92	91	92
Soil rating on tillable land	11.4	12.8	16.7	24.4		15.7	12.7	12.9
Total months labor	0.4	1.2	4.3	10.0		3.4	1.3	1.1
Months of hired labor	0	2	3	4		2	2	1
Beef produced, hundredweight	0	0	0	2		1	1	0
Pork produced, hundredweight	0	0	0	0		0	0	0
Dairy cows, number	0	0	0	0		0	0	0
Dollar return per farm	96,956	205,339	354,695	582,437		301,973	167,674	255,750
Crop returns	6	47	276	152		126	16	78
Livestock returns above feed	1,130	2,051	3,533	6,198		3,086	1,635	2,416
Custom work	876	1,745	2,290	3,840		2,184	1,664	2,270
Other farm receipts								
Value of farm production	98,968	209,182	360,794	592,626		307,370	170,989	260,514
Dollar costs per farm								
Crop expenses	20,873	43,108	72,580	117,824		62,171	42,541	45,731
Power and equipment	17,549	32,966	53,074	83,581		45,897	35,068	33,026
Building and fence	5,946	8,895	13,778	20,930		12,045	10,671	7,749
Labor	17,883	20,187	26,632	40,074		25,103	20,267	20,300
Livestock services and supplies	69	214	218	225		207	205	262
Taxes	5,646	11,295	18,797	30,069		16,108	10,656	12,369
Insurance and miscellaneous	3,330	5,705	8,392	13,049		7,507	5,429	5,892
Interest on nonland capital	5,580	11,353	18,881	33,151		16,660	11,490	12,154
Land charge or net rent	27,330	56,783	95,254	157,106		82,095	52,013	63,630
Total nonfeed cost	104,207	190,504	307,603	496,095		267,792	188,339	201,111
Capital account adjustment	825	1,439	1,553	2,785		1,651	574	2,389
Management returns	(4,413)	20,117	54,743	99,405		41,229	(16,776)	51,792
Farm production per \$1.00 of nonfeed costs	0.95	1.10	1.17	1.19		1.15	0.91	1.30
Farm production per man	104,373	196,382	258,663	291,465		234,871	162,124	242,607
Financial summary								
Cash operating income	102,793	207,239	348,199	566,441		298,840	180,394	239,753
Inventory change	2,908	14,894	32,770	60,630		26,623	3,556	33,824
Accts. receivable (net change)	(6,835)	(12,925)	(19,685)	(29,281)		(17,105)	(12,883)	(13,192)
Farm products used	103	286	594	805		446	152	480
Less purchased feed	0	135	795	5,513		1,192	53	214
Less purchased livestock	0	175	286	455		241	176	136
Adjusted gross farm income	98,968	209,182	360,794	592,626		307,370	170,989	260,514
Cash operating expense	45,828	90,155	149,617	246,303		129,534	90,569	94,174
Prepaid expense (-if increased)	577	(2,801)	(4,153)	(8,266)		(3,855)	(1,910)	(3,929)
Accts. payable (-if increased)	(262)	(337)	(32)	(98)		(207)	(532)	(241)
Farm-produced inputs	103	253	570	772		417	131	459
Total operating expense	46,245	87,268	146,000	238,708		125,888	88,256	90,461
Income before depreciation	52,723	121,912	214,792	353,915		181,479	82,734	170,055
Less depreciation	7,755	16,808	27,808	44,541		23,848	18,718	16,311
Capital account adjustment	825	1,439	1,553	2,785		1,651	574	2,389
Net farm income *	45,793	106,543	188,537	312,159		159,282	64,590	156,134
Operator's share *	20,534	42,733	70,798	105,051		59,535	19,715	68,727
Rate earned on investment, %	12,827	37,913	71,175	99,459		55,701	671	79,764
	4.09	6.14	7.00	7.24		6.72	3.53	8.51

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 86 to 100 are those with nearly level, well-drained prairie soils. * Interest expense deducted from operator's share only. Shown in parentheses because it pertains to operator's net farm income only.

Table 19a. 1993 Average Operating Costs, Investments, and Land Use by Size and Management Returns for Northern and Central Illinois Grain Farms with Soil Ratings from 86 to 100

Range in size (total acres)	180-339	340-799	800-1199	Over 1199	Your Farm	All Farms	Low 25%	High 25%
Management returns	56	419	241	140		856	105	105
Some costs and returns per tillable acre								
Soil fertility	35.10	33.13	32.21	32.66		32.73	35.55	30.83
Pesticides	24.54	25.70	26.41	25.17		25.74	27.79	23.52
Seed and other crop	18.36	18.47	18.36	18.22		18.35	19.80	17.75
Crop total	78.00	77.30	76.98	76.05		76.82	83.14	72.10
Light vehicle and utilities	6.44	4.62	3.65	3.02		3.84	5.18	4.01
Machinery repairs, supplies	17.86	14.92	14.86	13.56		14.54	16.15	13.23
Machinery hire	8.76	5.85	4.73	4.60		5.15	9.14	4.36
Fuel and oil	9.50	8.02	7.87	7.93		7.97	8.40	7.47
Machinery depreciation	23.02	25.70	25.19	24.85		25.21	29.67	23.00
Power and equipment total	65.58	59.11	56.30	53.96		56.71	68.54	52.07
Drying and storage	13.07	10.01	8.77	8.13		9.08	11.62	8.72
Building repair	3.20	1.51	1.53	1.50		1.55	2.33	0.79
Building depreciation	5.96	4.43	4.31	3.89		4.25	6.91	2.70
Building total	22.22	15.95	14.61	13.51		14.88	20.85	12.22
Labor, unpaid	64.64	32.81	20.84	14.68		23.89	34.91	29.28
Labor, hired	2.19	3.39	7.41	11.19		7.13	4.70	2.73
Labor total	66.83	36.20	28.25	25.87		31.02	39.61	32.01
Value of feed fed	0.00	0.12	0.14	0.17		0.14	0.17	0.08
Capital purchases	26.51	33.43	33.30	36.67		34.25	37.96	27.84
Operator interest paid	14.71	15.65	14.74	14.26		14.90	18.74	13.23
Crop returns	362.33	368.19	376.22	375.99		373.14	327.69	403.22
Livestock return above feed	0.02	0.08	0.29	0.10		0.16	0.03	0.12
Value of farm production	369.85	375.08	382.69	382.57		379.81	334.17	410.73
Total nonfeed cost	389.43	341.59	326.27	320.20		330.90	368.08	317.08
Management returns	(16.50)	36.07	58.07	64.17		50.95	(32.79)	97.42
Farm investment								
Livestock inventory	8	259	927	883		533	301	268
Grain inventory	68,931	131,729	225,267	368,444		192,671	109,603	164,511
Remaining cost in machinery and auto buildings and fence	11,019	28,366	49,751	99,266		44,848	32,409	27,134
soil fertility	44	71	65	153		81	23,819	11,133
Value of land (current)	607,332	1,261,843	2,116,748	3,491,236		1,824,336	1,155,844	1,413,997
Total farm investment	696,758	1,438,479	2,414,228	3,998,557		2,083,373	1,322,023	1,617,089
Total investment per acre	2,511	2,493	2,473	2,494		2,487	2,484	2,488
Machinery invest. per till. acre	41	51	53	64		55	63	43
Percent tillable land in								
Com and corn silage	50.0	48.0	47.0	48.1		47.7	50.1	47.4
Soybeans	44.2	45.5	46.2	44.3		45.3	42.5	46.8
Wheat	0.1	0.4	0.6	0.8		0.6	0.8	0.3
Other small grain	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Diversed acres	0.0	5.0	4.9	5.4		5.1	5.3	4.7
All hay and pasture	0.1	0.1	0.3	0.1		0.2	0.3	0.1
Crop yields, bushels per acre								
Com	141	147	151	149		149	132	159
Soybeans	48	49	49	50		49	46	50
Wheat	16	47	55	49		50	45	53

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 86 to 100 are those with nearly level, well-drained prairie soils.

Table 20. 1993 Average Return, Costs, and Financial Summary by Size and Management Returns for Northern and Central Illinois Grain Farms with Soil Ratings from 56 to 85

Range in size (total acres)	180-339	340-799	800-1199	Over 1199	Your Farm	All Farms	Low 25%	High 25%
Management returns								
Number of farms	40	284	131	105		560	71	340-799
Total acres in farm	272	588	968	1,680		859	554	676
Acres of tillable land	254	557	910	1,508		796	505	653
Soil rating on tillable land	78	78	76	76		77	78	77
Total months labor	12.1	13.1	15.5	21.3		15.1	13.6	12.9
Months of hired labor	0.8	1.2	3.2	6.0		2.6	1.7	1.1
Beef produced, hundredweight	1	0	4	10		3	0	0
Pork produced, hundredweight	0	0	0	2		0	0	0
Dairy cows, number	0	0	0	0		0	0	0
Dollar returns per farm								
Crop returns	83,171	183,351	306,328	487,591		262,008	142,469	239,731
Livestock returns above feed								
Custom work	1,233	2,092	3,548	5,589		3,027	1,909	2,334
Other farm receipts	562	1,865	2,200	3,210		2,102	1,970	2,435
Value of farm production	85,037	187,303	312,124	496,393		267,240	146,344	243,502
Dollar costs per farm								
Crop expenses	19,959	40,431	69,926	112,209		59,326	39,526	43,435
Power and equipment	17,888	32,677	52,859	83,805		45,928	35,572	32,739
Building and fence	5,110	7,689	13,311	19,366		11,010	8,245	6,958
Labor	18,840	20,327	24,808	33,775		23,791	21,392	20,087
Livestock services and supplies	157	144	144	232		160	245	122
Taxes	4,223	9,200	14,896	23,583		12,874	9,368	9,726
Insurance and miscellaneous	3,069	5,661	9,472	12,910		7,727	5,485	6,097
Interest on nonland capital	4,933	10,015	18,015	28,256		14,944	9,597	11,109
Land charge or net rent	22,020	47,106	76,056	125,032		66,698	43,151	54,307
Total nonfeed cost	96,198	173,244	279,483	439,164		242,453	172,583	184,578
Capital account adjustment	420	1,041	1,745	2,273		1,392	789	630
Management returns								
Farm production per \$1.00 of nonfeed costs	0.88	1.08	1.12	1.13		1.10	0.85	1.32
Farm production per man	84,265	172,219	241,704	280,149		212,387	129,463	226,193
Financial summary								
Cash operating income	91,188	186,373	314,411	498,752		268,097	159,906	231,808
Inventory change	(376)	13,013	18,875	32,609		17,102	(1,998)	26,226
Accs. receivable (net change)	(5,439)	(11,859)	(19,685)	(28,927)		(16,431)	(11,513)	(13,824)
Farm products used	60	246	600	809		421	189	357
Less purchased feed	393	428	1,789	6,119		1,811	222	1,022
Less purchased livestock	0	42	272	260		133	15	41
Adjusted gross farm income	85,037	187,303	312,124	496,393		267,240	146,344	243,502
Cash operating expense	44,199	83,657	142,401	229,515		121,939	83,975	87,118
Prepaid expense (-if increased)	(909)	(2,639)	(5,080)	(10,231)		(4,488)	(1,251)	(3,139)
Accs. payable (-if increased)	(41)	(162)	(180)	(1,233)		(358)	(107)	60
Farm-produced inputs	60	242	579	778		408	183	357
Total operating expense	43,307	81,126	137,747	218,827		117,489	82,798	84,394
Income before depreciation	41,730	106,176	174,393	278,037		149,754	63,546	159,108
Less depreciation	8,141	16,381	28,238	43,061		23,569	18,336	16,214
Capital account adjustment	420	1,041	1,745	2,273		1,392	789	630
Net farm income *	34,009	60,835	147,909	237,249		127,578	46,000	143,523
(operator's share)	17,797	35,629	50,653	74,418		45,143	9,519	67,325
Labor & mgt. income per operator	7,056	33,283	52,815	71,748		43,191	(7,257)	77,996
Rate earned on investment, %	2.88	6.04	6.56	6.70		6.34	2.51	9.01

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 56 to 85 are those with poorly drained, heavy-til, and timber soils. * Interest expense deducted from operator's share only. Shown in parentheses because it pertains to operator's net farm income only.

Table 20a. 1993 Average Operating Costs, Investments, and Land Use by Size and Management Returns for Northern and Central Illinois Grain Farms with Soil Ratings from 56 to 85

Range in size (total acres)	180-339	340-799	800-1199	Over 1199	Your Farm	All Farms	Low 25%	High 25%
Management returns	40	284	131	105		560	71	71
Number of farms								
Some costs and returns per tillable acre								
Soil fertility	33.60	31.35	32.49	32.26		32.03	35.16	29.09
Pesticides	25.74	24.13	25.71	25.21		24.97	25.19	21.46
Seed and other crop	19.16	17.06	18.68	16.94		17.50	17.85	15.93
Crop total	78.50	72.54	76.88	74.41		74.50	76.20	66.48
Light vehicle and utilities	9.25	5.10	4.07	3.32		4.29	5.25	4.67
Machinery repairs, supplies	19.84	14.83	13.61	14.03		14.34	18.13	12.53
Machinery hire	9.90	5.98	5.26	6.03		5.99	8.22	3.62
Fuel and oil	7.80	7.78	8.05	7.32		7.69	8.72	6.97
Machinery depreciation	23.57	24.95	27.12	24.87		25.47	30.06	22.32
Power and equipment total	70.36	58.63	58.12	55.57		57.68	70.38	50.11
Drying and storage	8.86	7.56	9.05	7.86		8.10	7.83	6.83
Building repair	2.79	1.80	1.66	1.30		1.61	2.30	1.31
Building depreciation	8.45	4.44	3.93	3.68		4.12	6.18	2.50
Building total	20.10	13.80	14.63	12.84		13.83	16.31	10.65
Labor, unpaid	70.00	33.43	21.36	15.92		24.82	37.00	28.40
Labor, hired	4.10	3.05	5.91	6.48		5.06	5.32	2.34
Labor total	74.10	36.47	27.28	22.40		29.88	42.32	30.74
Value of feed fed	0.04	0.06	0.16	0.21		0.14	0.10	0.02
Capital purchases	28.07	31.38	33.03	30.87		31.57	34.16	26.06
Operator interest paid	15.40	16.07	16.92	16.34		16.38	17.44	14.26
Crop returns	327.12	328.98	336.80	323.34		329.02	281.87	366.92
Livestock return above feed	0.28	(0.01)	0.05	0.31		0.13	(0.01)	0.00
Value of farm production	334.46	336.07	343.17	329.48		335.59	289.54	372.70
Total nonfeed cost	378.36	310.85	307.29	291.22		304.47	341.45	282.51
Management returns	(42.25)	27.09	37.81	39.77		32.87	(50.35)	91.15
Farm investment								
Livestock inventory	237	81	652	2,186		620	125	9
Grain inventory	54,575	108,285	187,884	282,002		155,641	83,185	142,339
Remaining cost in machinery and auto buildings and fence	10,402	25,441	56,473	84,933		42,781	28,825	25,724
soil fertility	26	67	186	54		90	106	58
Value of land (current)	489,333	1,046,801	1,690,143	2,778,482		1,482,167	958,923	1,206,820
Total farm investment	562,551	1,195,649	1,958,116	3,182,572		1,701,338	1,088,006	1,387,069
Total investment per acre	2,066	2,033	2,023	1,895		1,981	1,965	2,053
Machinery invest. per till. acre	41	46	62	56		54	57	39
Percent tillable land in								
Corn and corn silage	47.9	47.9	47.8	49.4		48.4	52.3	43.7
Soybeans	39.7	42.1	40.5	39.1		40.6	35.5	45.1
Wheat	2.4	1.4	2.4	1.7		1.8	0.8	1.4
Other small grain	0.2	0.1	0.1	0.1		0.1	0.1	0.0
Diversified acres	5.3	5.9	5.7	6.1		5.9	7.1	5.5
All hay and pasture	1.1	0.5	0.6	0.6		0.6	0.6	0.3
Crop yields, bushels per acre								
Corn	123	129	130	128		129	113	141
Soybeans	45	45	46	45		45	42	48
Wheat	36	47	41	46		44	43	50

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 56 to 85 are those with poorly drained, heavy-til, and timber soils.

Table 21. 1993 Average Return, Costs, and Financial Summary by Size and Months of Labor for Northern and Central Illinois Hog Farms with Soil Ratings from 86 to 100

Range in size (total acres)	60-259	260-499	500-799	Over 799	Your Farm	All Farms	Months of Labor	21-27	31-39
Management returns									
Number of farms	13	35	37	30		115	644	25	14
Total acres in farm	188	381	630	1,130		635	847		
Acres of tillable land	180	363	602	1,051		599	598		
Soil rating on tillable land	93	91	91	90		91	91		
Total months labor	14.5	18.5	27.2	42.5		27.1	24.1		
Months of hired labor	3.1	5.8	12.7	25.5		12.9	9.6		
Beef produced, hundredweight	28	62	35	394		136	203		
Pork produced, hundredweight	2,932	4,158	6,957	9,849		6,405	10,673		
Dairy cows, number	0	1	0	0		0	1		
Dollar returns per farm									
Crop returns	55,176	121,554	209,992	354,704		203,326	191,037		
Livestock returns above feed	52,955	81,955	132,154	201,081		125,904	88,354		
Custom work	229	1,181	549	5,271		1,937	2,626		
Other farm receipts	557	952	4,538	5,268		3,187	4,634		
Value of farm production	<u>108,916</u>	<u>205,643</u>	<u>347,234</u>	<u>566,325</u>		<u>334,355</u>	<u>266,652</u>		
Dollar costs per farm									
Crop expenses	12,833	27,596	43,913	76,799		44,012	43,446		
Power and equipment	23,633	37,079	61,667	104,197		60,979	56,637		
Building and fence	10,270	12,049	24,367	43,193		23,935	21,101		
Labor	21,937	29,057	43,998	80,896		46,582	38,279		
Livestock services and supplies	4,622	11,530	16,184	26,294		16,098	12,302		
Taxes	4,864	8,180	15,779	23,096		14,141	13,302		
Insurance and miscellaneous	3,944	5,513	11,689	18,427		10,691	9,508		
Interest on nonland capital	9,242	15,611	27,243	53,214		28,443	23,386		
Land charge or net rent	18,788	36,753	60,015	106,387		60,372	47,104		
Total nonfeed cost	<u>110,133</u>	<u>183,367</u>	<u>304,853</u>	<u>532,501</u>		<u>305,254</u>	<u>278,602</u>		
Capital account adjustment	535	312	491	58		329	171		
Management returns	<u>(681)</u>	<u>22,588</u>	<u>42,872</u>	<u>33,882</u>		<u>29,430</u>	<u>8,323</u>		
Farm production net, \$1.00	0.99	1.12	1.14	1.06		1.10	1.03		
Farm production per man	90,137	133,638	153,055	159,753		147,969	142,708		
Financial summary									
Cash operating income	174,318	281,448	472,365	767,339		457,517	380,353		
Inventory change	4,353	14,453	24,138	32,733		21,196	17,038		
Accs. receivable (net change)	(5,493)	(6,316)	(15,546)	(22,081)		(13,305)	(16,331)		
Farm products used	184	613	1,344	744		797	776		
Less purchased feed	57,298	67,773	109,177	158,699		103,630	72,422		
Less purchased livestock	7,147	16,782	25,277	54,289		28,210	22,761		
Adjusted gross farm income	<u>108,916</u>	<u>205,643</u>	<u>347,234</u>	<u>566,325</u>		<u>334,355</u>	<u>266,652</u>		
Cash operating expense	50,306	92,410	160,816	294,593		162,403	141,812		
Prepaid expense (+/- increased)	(1,779)	(1,321)	(1,342)	(9,088)		(3,398)	(1,328)		
Accs. payable (+/- increased)	(215)	16	(148)	(1,162)		(370)	(646)		
Farm-produced inputs	54	197	311	547		309	238		
Total operating expense	<u>49,365</u>	<u>91,301</u>	<u>159,935</u>	<u>284,918</u>		<u>158,942</u>	<u>140,073</u>		
Income before depreciation	60,551	114,341	187,313	281,430		175,423	126,579		
Less depreciation	15,807	19,811	35,243	61,201		35,121	31,840		
Capital account adjustment	535	312	491	58		329	171		
Net farm income *	<u>45,279</u>	<u>94,842</u>	<u>152,861</u>	<u>220,287</u>		<u>140,631</u>	<u>115,013</u>		
(operator's share)	27,432	46,309	65,546	95,011		60,460	44,505		
Labor & mgt. income per operator	17,248	40,710	60,424	44,440		45,374	29,680		
Rate earned on investment, %	5.03	7.29	7.66	6.32		6.88	5.57		

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 86 to 100 are those with nearly level, well-drained prairie soils. * Interest expense deducted from operator's share only. Shown in parentheses because it pertains to operator's net farm income only.

Table 21a. 1993 Average Operating Costs, Investments, and Land Use by Size and Months of Labor for Northern and Central Illinois Hog Farms with Soil Ratings from 86 to 100

Range in size (total acres)	60-259	260-499	500-799	Over 799	Your Farm	All Farms	Months of Labor	
Number of farms	13	35	37	30		115	25	31-39
Some costs and returns per tillable acre								
Management returns								
Soil fertility	24.50	27.07	27.39	27.82		27.43	26.25	25.75
Pesticides	27.62	28.00	27.01	26.88		27.15	27.84	30.03
Seed and other crop	19.03	20.99	18.55	18.40		18.95	18.53	20.35
Crop total	71.14	75.06	72.95	73.10		73.53	72.62	76.13
Light vehicle and utilities	27.23	16.49	16.74	15.68		16.56	13.29	16.33
Machinery repairs, supplies	30.06	23.60	26.80	26.26		26.07	26.14	26.25
Machinery hire	6.72	10.86	8.30	9.74		9.38	8.65	10.20
Fuel and oil	16.47	13.52	13.28	12.97		13.29	12.44	13.71
Machinery depreciation	50.53	37.74	37.32	34.53		36.57	34.15	40.48
Power and equipment total	131.01	102.20	102.45	99.18		101.88	94.67	106.97
Drying and storage	12.59	8.18	8.37	7.55		8.10	8.97	8.19
Building repair	7.25	8.16	10.88	9.84		9.78	7.23	10.07
Building depreciation	37.10	16.87	21.23	23.72		22.11	19.08	33.67
Building total	56.94	33.21	40.48	41.11		36.99	35.27	51.93
Labor, unpaid	99.40	54.82	37.90	25.49		37.44	38.12	30.54
Labor, hired	22.21	25.27	35.19	51.51		40.39	25.86	72.10
Labor total	121.61	80.09	73.09	77.00		77.83	63.99	102.64
Value of feed fed	413.13	300.65	292.89	245.80		276.85	224.60	320.06
Capital purchases	57.61	52.40	53.18	88.25		69.24	48.26	112.64
Operator interest paid	38.51	31.25	29.68	35.68		33.01	35.29	32.49
Crop returns	305.88	335.04	348.85	337.62		339.70	319.33	351.66
Livestock return above feed	293.57	225.90	219.54	191.40		210.35	147.69	302.69
Value of farm production	603.80	566.82	576.85	539.05		558.61	479.16	661.97
Total nonfeed cost	610.54	505.42	506.45	506.85		509.99	465.70	574.78
Management returns	(3.78)	62.26	71.22	32.25		49.17	13.91	87.40
Farm investment	47.530	70.389	121.343	222.081		123.771	95.908	214.662
Livestock inventory	44.901	84.058	136.532	223.122		133.436	121.012	180.970
Grain inventory								
Remaining cost in	12.608	30.957	47.062	108.737		54.355	40.639	97.950
machinery and auto	20.960	26.377	57.271	143.618		66.289	52.853	125.438
buildings and fence	0	69	0	266		90	136	432
soil fertility								
Value of land (current)	417.522	816.735	1,333.664	2,364.149		1,341.596	1,347.606	1,700.897
Total farm investment	543.521	1,028.585	1,697.973	3,061.972		1,719.536	1,658.156	2,320.347
Total investment per acre	2,897	2,699	2,697	2,709		2,710	2,576	2,739
Machinery invest. per till. acre	70	85	78	103		91	68	124
Percent tillable land in								
Corn and corn silage		51.8	54.1	52.9		53.3	54.2	54.2
Soybeans	28.2	37.7	36.2	34.9		35.6	33.3	35.6
Wheat	1.0	1.9	1.4	1.7		1.6	2.8	1.1
Other small grain	2.3	1.1	0.4	0.1		0.5	0.9	0.3
Diverted acres	6.3	4.7	5.3	5.7		5.4	5.0	5.1
All hay and pasture	4.8	2.1	0.9	1.5		1.5	2.6	1.2
Crop yields, bushels per acre								
Corn	124	133	134	132		133	124	138
Soybeans	46	49	48	49		48	47	48
Wheat	66	49	35	49		45	46	36

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 86 to 100 are those with nearly level, well-drained prairie soils.

Table 22. 1993 Average Return, Costs, and Financial Summary by Size and Months of Labor for Northern and Central Illinois Hog Farms with Soil Ratings from 56 to 85

Range in size (total acres)	60-259	260-499	500-799	Over 799	Your Farm	All Farms	Months of Labor
Management returns	37	74	68	48			21-27
Number of farms	181	390	638	1,241		227	50
Total acres in farm	338	390	638	1,241		607	827
Acres of tillable land	162	338	566	1,054		529	709
Soil rating on tillable land	74	75	75	75		75	76
Total months labor	17.4	17.3	24.2	40.0		24.2	34.7
Months of hired labor	5.3	4.0	10.3	26.2		10.8	15.5
Beef produced, hundredweight	85	137	222	576		247	223
Pork produced, hundredweight	3,480	3,186	5,210	8,782		5,024	8,252
Dairy cows, number	1	0	0	0		0	0
Dollar returns per farm							
Crop returns	49,158	97,603	175,081	351,695		166,645	239,454
Livestock returns above feed	81,577	55,797	94,433	171,478		96,034	165,230
Custom work	645	1,209	1,884	4,211		1,954	4,445
Other farm receipts	1,059	1,126	2,350	6,630		2,646	3,606
Value of farm production	132,441	155,736	273,748	534,011		267,278	412,735
Dollar costs per farm							
Crop expenses	12,749	24,083	41,764	78,067		38,947	48,830
Power and equipment	29,567	35,635	54,108	99,980		53,779	55,775
Building and fence	12,093	11,486	18,554	38,194		19,343	21,212
Labor	28,373	26,810	40,834	79,134		42,330	39,802
Livestock services and supplies	10,465	6,474	11,222	18,648		11,121	12,712
Taxes	3,699	6,690	10,139	19,847		10,018	10,683
Insurance and miscellaneous	5,537	4,920	9,011	17,740		8,957	8,642
Interest on nonland capital	12,749	13,746	23,486	47,042		23,542	23,610
Land charge or net rent	13,371	27,817	47,059	90,542		44,490	62,735
Total nonfeed cost	128,604	157,643	256,176	489,161		252,527	347,952
Capital account adjustment	180	851	1,623	1,076		1,020	2,201
Management returns	4,017	(1,055)	19,195	45,925		15,771	66,984
Farm production per \$1.00	1.03	0.99	1.07	1.09		1.06	1.19
Farm production per man	91,155	108,025	135,586	160,028		132,499	142,651
Financial summary							
Cash operating income	216,642	230,029	391,076	694,193		374,239	531,516
Inventory change	8,631	5,119	21,748	37,629		17,547	47,818
Accs. receivable (net change)	(3,083)	(7,821)	(11,124)	(17,567)		(10,099)	(9,679)
Farm products used	281	347	514	947		513	959
Less purchased feed	74,267	53,006	92,495	138,014		86,276	130,516
Less purchased livestock	15,752	17,630	35,972	43,178		27,362	27,362
Adjusted gross farm income	132,452	157,037	273,748	534,011		267,704	412,735
Cash operating expense	66,895	79,182	137,745	276,929		136,969	184,920
Prepaid expense (+/- increased)	(20)	(2,111)	(1,250)	(6,745)		(2,304)	(3,749)
Accs. payable (+/- increased)	25	(284)	(491)	325		(167)	(224)
Farm-produced inputs	66	90	172	349		165	392
Total operating expense	66,966	77,475	136,134	270,556		134,161	181,037
Income before depreciation	65,486	79,562	137,614	263,458		133,543	231,698
Less depreciation	16,458	17,609	27,557	59,323		29,222	39,981
Capital account adjustment	180	851	1,623	1,076		1,020	2,201
Net farm income *	49,208	62,804	111,680	205,210		105,341	193,918
(operator's share)	24,040	27,305	46,355	83,517		44,366	91,782
Labor & mgt. income per operator	22,534	16,937	34,842	52,589		30,752	72,709
Rate earned on investment, %	6.59	5.04	6.62	6.99		6.46	8.87

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 56 to 85 are those with poorly drained, heavy-tilly, and timber soils. * Interest expense deducted from operator's share only. Shown in parentheses because it pertains to operator's net farm income only.

Table 22a. 1993 Average Operating Costs, Investments, and Land Use by Size and Months of Labor for Northern and Central Illinois

Range in size (total acres)	60-259	260-499	500-799	Over 799	Your Farm	All Farms	Months of Labor
Management returns	37	74	68	48			21-27 50 31-39 20
Number of farms							
Some costs and returns per tillable acre							
Soil fertility	31.62	28.03	29.41	30.43		29.66	30.59 28.44
Pesticides	27.26	25.04	25.18	25.55		25.41	26.34 22.89
Seed and other crop	19.88	18.25	19.16	18.11		18.57	17.87 17.54
Crop total	78.76	71.31	73.75	74.09		73.64	74.80 68.88
Light vehicle and utilities	37.22	17.15	14.79	12.32		15.36	14.81 16.35
Machinery repairs, supplies	50.75	28.77	27.34	23.82		27.24	25.34 32.98
Machinery hire	21.15	11.53	8.18	10.99		10.71	9.90 9.25
Fuel and oil	19.94	13.08	12.35	12.70		13.03	12.00 14.64
Machinery depreciation	53.60	34.99	32.89	35.23		35.34	34.81 36.62
Power and equipment total	182.66	105.52	95.55	94.86		101.68	96.86 109.85
Drying and storage	9.76	8.06	8.31	5.80		7.27	7.33 6.65
Building repair	16.87	8.76	8.72	9.42		9.43	9.08 9.71
Building depreciation	48.08	17.14	15.73	21.03		19.87	20.43 19.60
Building total	74.71	33.95	32.76	36.25		36.57	36.84 35.96
Labor, unpaid	117.82	62.21	38.73	20.72		39.97	40.55 42.77
Labor, hired	57.47	17.18	33.37	54.39		40.06	28.58 36.82
Labor total	175.29	79.39	72.11	75.11		80.03	69.12 79.56
Value of feed fed	624.36	268.83	257.14	226.53		265.00	244.96 305.25
Capital purchases	131.10	49.93	59.66	65.09		63.48	64.05 48.64
Operator interest paid	47.47	32.84	35.34	29.35		32.90	31.44 52.89
Crop returns	303.70	289.02	309.17	333.79		315.07	298.11 337.76
Livestock return above feed	503.98	165.22	166.76	162.75		181.57	149.77 233.06
Value of farm production	818.22	461.16	483.40	506.82		505.34	454.46 582.18
Total nonfeed cost	794.51	466.81	452.37	464.26		477.45	455.03 490.80
Management returns	24.81	(3.13)	33.90	43.59		29.82	0.04 94.48
Farm investment	65.715	67.617	106.365	176.469		101.931	99.473 166.715
Grain inventory	35.431	68.754	103.778	214.212		104.572	108.921 156.633
Remaining cost in machinery and auto buildings and fence	18.336	24.862	48.390	101.749		47.105	53.035 58.239
soil fertility	0	24.375	50.291	121.622		55.339	51.309 69.692
Value of land (current)	297,140	120	128	299		141	235 316
Total farm investment	457,175	618.168	1,045,762	2,012,053		988,674	1,033,584 1,394,113
Total investment per acre	2,524	803,898	1,354,715	2,626,406		1,297,762	1,346,559 1,845,710
Machinery invest, per till. acre	113	2.118	2.122	2.117		2.139	2.018 2.233
Percent tillable land in			85	97		89	92 82
Corn and corn silage	62.7	56.9	55.2	53.1		55.1	55.0 56.8
Soybeans	18.5	27.7	30.0	32.6		30.0	29.6 31.8
Wheat	2.8	1.6	3.5	3.8		3.2	4.4 2.6
Other small grain	2.9	1.7	0.6	0.2		0.8	0.5 0.3
Diversed acres	5.0	5.9	6.4	6.8		6.4	6.8 5.4
All hay and pasture	5.2	4.4	3.0	2.8		3.3	3.0 2.6
Crop yields, bushels per acre							
Corn	118	115	119	128		122	116 124
Soybeans	46	45	45	47		46	44 48
Wheat	43	38	40	46		43	44 47

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 56 to 85 are those with poorly drained, heavy-til, and limber soils.

Table 23. 1993 Average Return, Costs, and Financial Summary by Size and Management Returns for Southern Illinois Grain Farms									
with Soil Ratings from 36 to 85									
Range in size (total acres)	180-339	340-799	800-1199	Over 1199	Your Farm	All Farms	Low 25%	High 25%	
Management returns	26	201	136	136		499	50	340-799	
Number of farms	287	597	992	1,841		1,028	560	50	674
Total acres in farm	263	548	924	1,718		954	505	57	636
Acres of tillable land	58	59	60	59		60	57	60	57
Soil rating on tillable land	12.3	14.8	18.1	28.9		19.4	15.6	3.1	15.7
Total months labor	0.4	2.4	5.1	12.6		5.8	3.1	104	55
Beef produced, hundredweight	57	77	447	73		74	28	470	0
Pork produced, hundredweight	142	300	447	635		423	28	470	0
Dairy cows, number	0	0	0	1		0	0	0	0
Dollar returns per farm	71,826	160,134	281,034	539,872		291,979	114,486		217,756
Crop returns	2,311	6,148	7,827	12,095		8,026	627		8,226
Livestock returns above feed	332	1,198	1,866	3,810		2,047	1,208		1,301
Custom work	2,776	2,243	2,991	4,475		3,083	1,492		2,391
Other farm receipts	77,245	168,723	293,718	560,252		305,135	117,812		229,673
Value of farm production									
Dollar costs per farm	17,828	37,780	65,391	123,464		67,619	33,811		43,273
Crop expenses	18,508	36,467	55,159	100,896		58,185	37,808		39,159
Power and equipment	3,275	5,744	8,924	15,041		9,016	5,059		6,197
Building and fence	19,079	22,803	28,133	45,049		30,124	23,641		24,199
Labor	313	796	1,165	1,842		1,157	578		684
Livestock services and supplies	2,095	4,805	7,865	13,804		7,948	4,393		5,657
Taxes	2,276	4,390	6,638	12,138		7,005	4,045		4,667
Insurance and miscellaneous	4,739	10,045	15,861	31,580		17,223	9,566		11,533
Interest on nonland capital	14,312	30,728	52,788	93,345		52,951	27,933		34,801
Land charge or net rent	82,425	153,555	241,910	437,154		251,223	146,833		170,170
Total nonfeed cost	1,060	756	468	1,899		1,005	177		2,021
Capital account adjustment	(4,120)	16,923	52,277	124,997		54,917	(28,843)		61,524
Management returns	0.94	1.11	1.21	1.28		1.21	0.80		1.35
Farm production per \$1.00 of nonfeed costs	75.621	137.217	194.312	232.406		188.304	90.532		174.989
Farm production per man									
Financial summary									
Cash operating income	78,758	171,173	283,174	534,732		295,969	136,366		220,290
Inventory change	4,931	12,336	27,985	58,515		28,801	(5,782)		24,193
Accs. receivable (net change)	(461)	(2,251)	(5,448)	(9,559)		(5,021)	(2,696)		(2,027)
Farm products used	286	821	1,508	1,843		1,259	775		1,037
Less purchased feed	3,177	6,124	8,877	20,894		10,746	3,173		7,551
Less purchased livestock	3,091	6,231	4,569	4,265		5,078	7,675		6,267
Adjusted gross farm income	77,245	168,723	293,718	560,252		305,135	117,812		229,673
Cash operating expense	35,696	75,298	130,929	247,484		135,728	69,231		87,463
Prepaid expense (-if increased)	(831)	(1,952)	(5,798)	(10,783)		(5,349)	(975)		(2,777)
Accs. payable (-if increased)	0	131	1	(29)		45	1,178		(290)
Farm-produced inputs	151	728	1,306	1,714		1,124	625		685
Total operating expense	35,015	75,203	126,438	238,383		131,547	70,058		85,379
Income before depreciation	42,230	94,523	167,337	321,963		173,637	47,754		144,295
Less depreciation	9,641	17,916	26,309	48,116		28,003	19,541		18,499
Capital account adjustment	1,060	756	468	1,899		1,005	177		2,021
Net farm income*	33,649	77,363	141,497	275,767		146,639	28,390		127,817
(operator's share)	17,562	36,424	64,580	124,877		67,222	2,490		66,548
Labor & mgt. income per operator	14,586	35,069	68,481	125,301		67,700	(9,518)		78,229
Rate earned on investment, %	3.89	6.95	8.61	9.85		8.76	1.15		11.34

Note: Variations in totals due to rounding to the nearest dollar.
 * Interest expense deducted from operator's share only. Shown in parentheses because it pertains to operator's net farm income only.

Table 23a. 1993 Average Operating Costs, Investments, and Land Use by Size and Management Returns for Southern Illinois Grain Farms with Soil Ratings from 36 to 85

Range in size (total acres)	180-339	340-799	800-1199	Over 1199	Your Farm	All Farms	Low 25% 50	High 25% 50
Management returns Number of farms	26	201	136	136		499		
Some costs and returns per tillable acre								
Soil fertility	31.73	30.50	31.45	31.25		31.14	30.52	28.44
Pesticides	21.56	22.44	23.06	23.78		23.25	20.22	24.32
Seed and other crop	14.42	16.02	16.24	16.85		16.46	16.16	15.24
Crop total	67.71	68.96	70.75	71.88		70.85	66.90	68.00
Light vehicle and utilities	6.12	5.26	3.95	3.78		4.20	5.27	5.17
Machinery repairs, supplies	20.73	18.76	17.23	16.70		17.38	18.89	19.08
Machinery hire	4.93	5.04	4.82	5.36		5.14	6.13	3.94
Fuel and oil	7.70	9.02	9.05	8.52		8.76	9.52	8.66
Machinery depreciation	30.82	28.49	24.63	24.38		25.49	34.99	24.69
Power and equipment total	70.26	66.57	59.68	58.74		60.97	71.81	61.54
Drying and storage	2.50	3.33	3.67	3.29		3.39	2.90	3.10
Building repair	4.14	2.96	2.15	1.83		2.21	3.74	2.33
Building depreciation	5.80	4.19	3.83	3.64		3.85	3.67	4.31
Building total	12.44	10.48	9.66	8.76		9.45	10.01	9.74
Labor, unpaid	71.09	35.81	22.15	14.93		22.47	39.05	31.34
Labor, hired	1.37	5.81	8.29	11.30		9.09	7.73	6.68
Labor total	72.46	41.62	30.44	26.23		31.56	46.78	38.03
Value of feed	25.89	20.70	16.99	12.56		15.80	12.64	23.47
Capital purchases	54.13	35.03	36.63	35.16		35.79	35.57	38.14
Operator interest paid	12.11	19.80	16.95	15.26		15.71	20.31	21.58
Crop returns	272.78	292.31	304.07	314.33		305.93	226.52	342.20
Livestock return above feed	8.78	11.22	8.47	7.04		8.41	1.24	12.93
Value of farm production	293.36	309.81	317.79	326.19		319.72	233.11	360.93
Total nonfeed cost	313.04	280.30	261.74	254.52		263.23	290.53	267.42
Management returns	(15.65)	30.89	56.56	72.78		57.54	(57.07)	96.68
Farm investment	9,513	14,629	17,193	20,561		16,678	16,791	13,824
Livestock inventory	34,947	91,779	153,125	300,069		162,306	65,075	122,610
Remaining cost in								
machinery and auto	12,860	31,505	48,132	112,169		57,050	38,117	32,734
buildings and fence	8,753	9,547	12,971	28,647		15,645	11,511	8,197
soil fertility	0	42	28	380		51	51	69
Value of land (current)	318,041	682,843	1,173,071	2,074,330		1,176,687	620,727	773,354
Total farm investment	384,114	830,348	1,404,524	2,536,141		1,428,491	752,274	950,789
Total investment per acre	1,337	1,390	1,416	1,377		1,390	1,343	1,410
Machinery invest. per till. acre	49	58	52	65		60	75	51
Percent tillable land in								
Corn and corn silage	33.2	36.8	37.3	38.5		37.7	30.2	39.3
Soybeans	36.1	38.9	39.4	37.9		34.1	34.1	41.5
Wheat	17.9	13.9	13.9	12.7		18.7	18.7	12.7
Other small grain	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Diversed acres	4.0	4.6	3.9	4.0		4.1	4.0	3.5
All hay and pasture	5.1	2.2	1.7	1.2		1.6	4.4	0.6
Crop yields, bushels per acre								
Corn	126	127	133	131		131	103	140
Soybeans	39	40	41	42		33	33	44
Wheat	43	47	49	52		50	42	51

Note: Variations in totals due to rounding to the nearest dollar.

Table 24. 1993 Average Return, Costs, and Financial Summary by Size and Months of Labor for Southern Illinois Hog Farms with Soil Ratings from 36 to 85

Range in size (total acres)	60-259	260-499	500-799	Over 799	Your Farm	All Farms	Months of Labor	
	9	36	25	33		103	21-27	31-39
Number of farms	165	372	629	1,254		699	602	1,056
Total acres in farm	128	334	629	1,131		699	602	1,056
Acres of tillable land	61	60	57	60		59	512	968
Soil rating on tillable land	16.2	18.9	24.5	37.6		26.0	23.8	34.3
Months of hired labor	2.2	4.7	8.1	19.0		9.9	5.9	14.5
Beef produced, hundredweight	43	74	133	370		180	119	87
Pork produced, hundredweight	2,855	3,338	4,770	8,392		5,259	4,406	7,343
Dairy cows, number	0	0	0	0		0	0	0
Dollar returns per farm	38,653	101,281	149,117	345,419		85,638	141,895	304,524
Livestock returns above feed	55,297	47,068	80,176	152,553		89,619	68,786	135,395
Custom work	93	613	1,156	4,055		1,802	837	2,835
Other farm receipts	677	1,664	2,412	5,958		3,135	2,368	3,096
Value of farm production	94,720	150,627	232,861	507,985		280,195	213,885	445,850
Dollar costs per farm	7,405	25,551	35,981	79,459		43,764	34,609	63,536
Crop expenses	19,602	32,680	39,773	97,397		56,181	48,492	81,565
Power and equipment	12,533	7,967	17,451	33,226		18,761	13,829	28,024
Building and fence	26,118	28,968	37,316	61,010		41,011	35,271	51,930
Labor	7,449	5,822	10,621	20,770		11,918	10,204	17,390
Livestock services and supplies	2,261	3,737	5,117	10,340		6,059	5,776	7,187
Taxes	2,393	5,211	7,955	14,610		8,642	7,605	13,045
Insurance and miscellaneous	8,576	11,980	19,613	42,319		23,256	17,303	37,028
Interest on nonland capital	8,883	19,433	29,421	66,970		36,165	30,374	54,930
Land charge or net rent	95,221	141,359	212,228	426,102		245,757	203,464	354,634
Total nonfeed cost	(489)	347	(1,599)	(954)		(572)	1,566	(3,071)
Capital account adjustment								
Management returns		9,614	19,033	80,927		33,864	11,987	88,144
Farm production per \$1.00 of nonfeed costs	0.99	1.07	1.10	1.19		1.14	1.05	1.26
Farm production per man	70,067	95,636	114,036	162,201		129,263	107,710	155,941
Financial summary								
Cash operating income	155,943	214,232	321,993	650,347		375,020	293,990	541,728
Inventory change	5,362	12,193	18,220	49,204		24,917	13,959	50,468
Acts, receivable (net change)	0	(804)	(1,845)	(5,941)		(2,632)	(415)	(7,481)
Farm products used	279	982	1,162	2,904		1,580	1,463	3,267
Less purchased feed	59,792	63,718	86,375	157,033		98,771	81,129	127,523
Less purchased livestock	7,071	12,258	20,292	31,496		19,918	13,982	14,608
Adjusted gross farm income	94,720	150,627	232,861	507,985		280,195	213,885	445,850
Cash operating expense	45,475	72,571	111,399	243,454		134,370	105,263	204,708
Prepaid expense (-if increased)	0	(344)	(2,597)	(13,855)		(5,274)	(2,170)	(19,341)
Acts, payable (-if increased)	0	(71)	22	(400)		(147)	(78)	(915)
Farm-produced inputs	88	553	2,559	2,559		1,184	1,020	2,748
Total operating expense	44,557	72,718	109,492	231,735		130,130	104,033	184,198
Income before depreciation	50,163	77,909	123,369	276,249		150,064	109,852	261,652
Less depreciation	11,067	14,989	27,917	55,948		30,907	23,582	47,431
Capital account adjustment	0	347	(1,599)	(954)		(572)	1,566	(3,071)
Net farm income*	39,096	63,267	93,851	219,347		118,584	87,836	211,150
(operator's share) *	32,195	36,631	60,308	124,850		70,255	54,499	130,263
Labor & mgt. income per operator	17,264	28,517	29,708	81,703		44,863	30,133	101,599
Rate earned on investment, %	5.41	6.95	7.39	9.21		8.34	6.59	10.40

Note: Variations in totals due to rounding to the nearest dollar.

* Interest expense deducted from operator's share only. Shown in parentheses because it pertains to operator's net farm income only.

Table 24a. 1993 Average Operating Costs, Investments, and Land Use by Size and Management Returns for Southern Illinois Hog Farms with Soil Ratings from 36 to 85

Range in size (total acres)	60-259	260-499	500-799	Over 799	Your Farm	All Farms	Months of Labor 21-27 24 31-39 11
Number of farms	9	36	25	33		103	
Some costs and returns per tillable acre							
Soil fertility	24.57	33.19	26.37	28.71		28.95	27.65
Pesticides	18.12	26.19	22.07	23.82		23.78	23.19
Seed and other crop	15.27	17.15	15.18	17.75		17.03	16.82
Crop total	57.95	76.53	63.62	70.27		69.76	67.66
Light vehicle and utilities	32.57	16.11	15.35	10.71		15.35	16.57
Machinery repairs, supplies	47.94	30.28	26.35	23.06		25.57	28.63
Machinery hire	21.43	3.90	3.66	6.97		6.97	3.30
Fuel and oil	23.17	14.70	13.64	12.93		13.60	14.96
Machinery depreciation	28.30	32.93	27.29	32.46		31.34	31.34
Power and equipment total	153.41	97.92	86.29	86.14		89.56	94.80
Drying and storage	6.90	3.68	3.43	4.19		3.98	3.45
Building repair	32.87	8.51	5.34	8.17		8.02	8.92
Building depreciation	58.31	11.87	22.10	17.02		17.91	14.67
Building total	98.09	23.86	30.87	29.38		29.91	27.04
Labor, unpaid	173.25	66.77	45.70	25.82		40.40	55.17
Labor, hired	31.15	20.00	20.32	28.14		24.97	13.79
Labor total	204.40	86.77	66.02	53.96		65.38	68.96
Value of feed fed	588.17	297.73	233.66	212.37		239.59	250.78
Capital purchases	56.18	45.86	71.34	61.61		60.71	36.37
Operator interest paid	27.80	29.99	25.45	24.87		26.00	30.63
Crop returns	302.50	303.36	263.81	305.48		295.92	277.41
Livestock return above feed	432.76	140.98	141.84	134.92		142.86	134.48
Value of farm production	741.29	451.17	411.97	449.25		446.65	418.15
Total nonfeed cost	745.21	423.41	375.46	376.84		391.76	397.78
Management returns	(3.92)	28.80	33.67	71.57		53.98	23.44
Farm investment	60.788	63.309	93.797	171.260		105.075	85.953
Livestock inventory	33.558	55.962	91.952	226.759		117.461	82.920
Remaining cost in							
machinery and auto	11,630	21,527	37,478	100,221		49,624	32,554
buildings and fence	0	17,511	43,430	78,019		42,674	29,445
soil fertility	0	16	68	8		25	24
Value of land (current)	197,399	431,841	653,799	1,488,213		803,678	674,974
Total farm investment	373,605	590,164	920,522	2,064,481		1,118,536	1,220,671
Total investment per acre	1,897	1,588	1,463	1,646		1,601	1,506
Machinery invest. per till. acre	80	64	66	89		79	64
Percent tillable land in							
Corn and corn silage	42.3	44.1	42.0	39.8		41.1	40.6
Soybeans	33.7	29.6	32.0	33.3		32.3	32.4
Wheat	11.7	15.9	11.0	12.3		12.7	12.8
Other small grain	0.0	0.0	0.0	0.0		0.0	0.0
Diverted acres	0.2	3.8	3.9	4.1		3.9	4.7
All hay and pasture	5.4	3.0	4.0	2.8		3.2	2.2
Crop yields, bushels per acre							
Corn	120	120	109	126		121	112
Soybeans	42	41	40	41		39	39
Wheat	45	46	42	46		45	45

Note: Variations in totals due to rounding to the nearest dollar.

Table 25. 1993 Average Return, Costs, and Financial Summary by Number of Cows in Herd for Illinois Dairy Farms

Area of state	Northern Illinois				Southern Illinois			
	10-39	40-79	Over 79	All Farms	10-39	40-79	Over 79	All Farms
Number of cows in herd	16	82	32	130	5	24	33	62
Number of farms								
Total acres in farm	231	371	500	386	357	335	529	440
Acres of tillable land	172	317	427	326	479	305	325	399
Soil rating on tillable land	72	72	72	72	60	61	59	60
Total months labor	15.2	21.0	32.1	23.0	28.3	21.1	33.6	28.3
Months of hired labor	3.4	5.4	14.3	7.3	14.5	6.8	15.4	12.0
Beef produced, hundredweight	392	563	818	605	252	377	631	502
Pork produced, hundredweight	195	177	259	200	0	102	1	40
Dairy cows, number	28	57	101	64	33	62	112	86
Dollar returns per farm								
Crop returns	49,843	86,181	126,127	91,541	92,861	93,320	142,495	119,456
Livestock returns above feed	45,718	67,717	135,169	81,613	59,123	81,637	131,182	106,192
Custom work	243	708	526	606	269	413	163	288
Other farm receipts	1,154	1,461	2,585	1,700	1,993	2,119	2,283	2,196
Value of farm production	96,958	156,067	264,407	175,460	154,246	177,489	276,123	228,113
Dollar costs per farm								
Crop expenses	12,204	20,910	29,272	21,897	23,742	20,575	32,201	27,018
Power and equipment	25,167	40,318	64,882	44,499	26,332	45,930	67,864	56,024
Building and fence	7,487	11,459	22,144	13,600	9,031	6,245	12,231	9,172
Labor	25,815	32,712	50,151	36,156	44,104	32,634	50,500	43,069
Livestock services and supplies	8,696	15,702	32,944	19,084	9,256	11,985	23,345	17,812
Taxes	3,385	5,816	8,790	6,249	3,321	2,688	4,127	3,505
Insurance and miscellaneous	2,490	4,418	7,781	5,009	3,690	4,845	6,573	5,672
Interest on nonland capital	10,092	17,549	29,851	19,659	9,152	14,812	26,658	20,661
Land charge or net rent	14,543	24,324	31,895	24,984	18,131	17,926	26,689	22,607
Total nonfeed cost	109,879	173,209	277,708	191,137	140,760	157,640	250,188	205,538
Capital account adjustment	86	716	165	503	0	1,040	462	462
Management returns	(12,834)	(16,425)	(13,135)	(15,173)	13,486	20,889	26,047	23,038
Farm production per \$1.00 of nonfeed costs	0.88	0.90	0.95	0.92	1.10	1.13	1.10	1.11
Farm production per man	76,577	89,249	98,729	91,477	65,451	101,041	98,616	96,644
Financial summary								
Cash operating income	130,772	202,094	347,305	229,060	159,442	198,740	347,879	274,951
Inventory change	2,745	2,371	1,679	2,247	18,028	17,664	1,510	9,085
Accts. receivable (net change)	(2,087)	(5,535)	(6,373)	(5,317)	(1,623)	(349)	(1,675)	(1,158)
Farm products used	1,304	2,037	2,452	2,049	1,588	1,115	1,892	1,567
Less purchased feed	23,654	30,627	66,176	38,519	22,598	31,130	67,545	49,824
Less purchased livestock	11,391	12,999	13,279	12,869	0	8,200	5,486	6,094
Adjusted gross farm income	97,697	157,340	265,608	176,650	154,836	177,840	276,573	228,536
Cash operating expense	54,622	87,410	154,828	99,970	80,062	177,832	134,861	108,366
Prepaid expense (-if increased)	181	(548)	(1,498)	(692)	3,059	1,332	(1)	752
Accts. payable (+if increased)	105	(106)	(114)	(82)	(125)	0	224	109
Farm-produced inputs	770	1,359	1,267	1,264	590	523	917	738
Total operating expense	55,677	88,113	154,480	100,457	83,585	79,687	136,001	109,975
Income before depreciation	42,020	69,227	111,128	76,192	71,251	98,153	140,573	118,562
Less depreciation	11,702	19,988	34,588	22,562	8,746	23,057	32,684	27,027
Capital account adjustment	86	716	165	503	0	1,040	112	462
Net farm income *	30,404	49,954	76,705	54,133	62,504	76,136	108,000	91,997
(operator's share) *	18,007	19,610	37,220	23,748	35,118	53,249	63,188	57,077
Labor & mgmt. income per operator	5,671	4,096	4,436	4,915	23,354	38,548	38,451	37,271
Rate earned on investment, %	2.60	3.31	6.48	3.64	7.91	9.08	8.46	8.61

Note: Variations in totals due to rounding to the nearest dollar. Northern Illinois includes both northern and central Illinois. * Interest expense deducted from operator's share only. Shown in parentheses because it pertains to operator's net farm income only.

Table 25a. 1993 Average Operating Costs, Investments, and Land Use by Number of Cows in Herd for Illinois Dairy Farms

Area of state	Northern Illinois				Southern Illinois			
	10-39	40-79	Over 79	All Farms	10-39	40-79	Over 79	All Farms
Number of cows in herd	16	82	32	130	5	24	33	62
Number of farms	16	82	32	130	5	24	33	62
Some costs and returns per tillable acre								
Soil fertility	33.52	26.77	26.63	27.16	30.02	31.58	31.00	31.11
Pesticides	17.75	20.65	20.89	20.54	26.33	18.20	19.52	19.57
Seed and other crop	19.74	18.62	20.99	19.46	17.76	17.76	16.65	16.99
Crop total	71.01	66.05	68.51	67.16	73.14	67.54	67.17	67.67
Light vehicle and utilities	21.80	19.78	25.20	21.66	13.72	21.01	17.62	18.36
Machinery repairs, supplies	39.05	35.25	42.43	37.81	29.59	35.62	42.25	39.46
Machinery hire	24.22	12.06	15.71	14.02	4.06	11.81	11.58	11.16
Fuel and oil	16.37	16.18	17.98	16.77	10.27	17.44	17.45	16.98
Machinery depreciation	44.99	44.08	50.55	46.23	23.48	64.90	52.65	54.36
Power and equipment total	146.43	127.35	151.86	136.49	81.12	150.77	141.55	140.31
Drying and storage	5.88	7.78	7.92	7.70	3.34	0.82	2.89	2.31
Building repair	14.58	9.36	13.50	11.03	2.54	8.89	7.09	7.33
Building depreciation	23.09	19.05	30.41	22.98	3.47	10.79	15.52	13.34
Building total	43.56	36.19	51.83	41.72	9.34	20.50	25.51	22.97
Labor, unpaid	108.25	77.66	65.89	75.85	66.96	73.89	59.73	64.39
Labor, hired	41.95	25.66	51.49	35.05	68.91	33.24	45.60	43.48
Labor total	150.20	103.32	117.38	110.90	135.87	107.13	105.34	107.87
Value of feed fed	329.07	279.49	350.42	305.59	149.21	251.79	288.77	268.70
Capital purchases	72.66	53.59	57.18	55.99	31.78	70.86	61.69	62.43
Operator interest paid	39.55	37.87	38.08	38.05	21.34	33.79	36.51	34.71
Crop returns	289.99	272.21	295.21	280.78	286.08	306.34	297.22	299.18
Livestock return above feed	266.00	213.89	316.37	250.33	182.14	267.99	273.62	265.96
Value of farm production	564.12	492.95	618.86	538.18	475.19	582.65	575.95	571.32
Total nonfeed cost	639.30	547.09	649.99	586.27	433.64	517.49	521.85	514.78
Management returns	(74.68)	(51.88)	(30.74)	(46.54)	41.55	68.57	54.33	57.70
Farm investment								
Livestock inventory	57,726	91,480	151,590	102,122	36,025	81,574	163,341	121,422
Grain inventory	32,605	56,392	89,600	61,688	52,769	51,488	86,533	70,244
Remaining cost in machinery and auto buildings and fence	15,960	35,988	64,857	40,629	16,873	41,500	55,906	47,182
soil fertility	24,280	45,057	74,163	49,664	6,920	17,847	39,570	28,528
Value of land (current)	0	26	170	58	0	151	0	59
Total farm investment	323,180	540,539	708,769	555,197	402,920	398,357	593,088	502,372
Total investment per acre	453,751	769,483	1,089,347	809,359	515,507	590,918	938,437	769,806
Machinery invest. per till. acre	1,963	2,073	2,178	2,099	1,444	1,763	1,772	1,748
Percent tillable land in	93	114	152	125	52	136	117	118
Corn and corn silage	49.7	52.0	51.1	51.5	47.4	33.8	37.6	37.1
Soybeans	8.4	9.0	7.8	8.6	20.5	20.1	22.5	21.7
Wheat	0.0	0.8	1.0	0.8	13.2	17.2	14.6	15.3
Other small grain	5.7	4.8	4.9	4.9	0.0	0.1	0.0	0.0
Diverted acres	4.3	5.3	4.3	4.9	3.1	2.3	2.3	2.4
All hay and pasture	28.2	25.9	29.1	27.1	15.8	25.9	20.8	22.0
Crop yields, bushels per acre								
Corn	107	100	111	104	109	115	118	116
Soybeans	44	38	45	40	41	42	39	40
Wheat	0	31	37	33	46	46	42	44

Note: Variations in totals due to rounding to the nearest dollar. Northern Illinois includes both northern and central Illinois.

Table 26. 1993 Average Return, Costs, and Financial Summary by Size and Months of Labor for Illinois Beef Farms

Area of state	Northern Illinois				Months of Labor			Southern Illinois
	Range in size (total acres)	180-339	340-799	Over 799	All Farms	Your Farm	21-27	31-39
Number of farms	12	42	29	83	17	7	16	
Total acres in farm	289	509	1,166	707	862	1,151	674	
Acres of tillable land	266	439	1,087	640	814	1,000	500	
Soil rating on tillable land	81	78	80	79	81	78	51	
Total months labor	14.0	17.8	31.8	22.1	24.5	35.6	21.2	
Months of hired labor	2.0	4.9	15.1	8.0	9.1	15.9	5.8	
Beef produced, hundredweight	1,539	2,363	4,864	3,118	3,234	5,890	1,274	
Pork produced, hundredweight	199	663	1,388	849	1,236	772	762	
Dairy cows, number	0	0	0	0	0	0	0	
Dollar returns per farm								
Crop returns	76,426	139,919	355,091	205,920	266,250	309,744	130,633	
Livestock returns above feed	21,035	50,433	92,817	60,991	67,427	83,913	15,826	
Custom work	743	1,683	3,289	2,108	1,627	5,817	777	
Other farm receipts	1,093	1,476	2,747	1,865	1,625	3,296	2,062	
Value of farm production	99,297	193,512	453,945	270,885	336,929	402,771	149,298	
Dollar costs per farm								
Crop expenses	22,284	35,632	89,817	52,634	65,320	75,171	29,883	
Power and equipment	28,557	45,418	97,695	61,246	77,853	110,756	45,738	
Building and fence	9,174	10,723	23,879	15,096	20,572	33,054	5,191	
Labor	21,824	27,608	51,311	35,054	37,053	58,111	31,657	
Livestock services and supplies	2,674	7,824	15,260	9,678	9,513	17,434	4,915	
Taxes	5,362	9,045	20,393	12,478	15,131	22,318	4,441	
Insurance and miscellaneous	3,495	5,845	12,914	7,975	8,920	12,930	5,733	
Interest on nonland capital	17,156	27,908	64,000	38,964	47,470	69,064	19,331	
Land charge or net rent	24,528	38,496	96,893	56,881	73,602	83,209	23,440	
Total nonfeed cost	135,053	208,500	472,162	290,004	355,435	482,046	170,330	
Capital account adjustment	106	775	1,084	786	2,028	444	1,544	
Management returns	(35,649)	(14,213)	(17,133)	(18,332)	(16,477)	(78,831)	(19,488)	
Farm production per \$1.00 of nonfeed costs	0.74	0.93	0.96	0.93	0.95	0.84	0.88	
Farm production per man	85,163	130,667	171,263	146,895	165,066	135,765	84,384	
Financial summary								
Cash operating income	320,826	513,934	1,176,476	717,506	799,802	1,360,114	257,724	
Inventory change	(19,027)	19,397	13,503	11,782	18,262	(150,060)	(2,367)	
Accts. receivable (net change)	(7,677)	(13,328)	(27,890)	(17,599)	(22,740)	(31,873)	0	
Farm products used	633	988	2,368	1,419	2,041	1,489	1,224	
Less purchased feed	20,828	35,257	77,019	47,763	53,712	86,400	29,600	
Less purchased livestock	174,627	292,223	633,495	394,461	406,724	690,498	77,683	
Adjusted gross farm income	99,297	193,512	453,945	270,885	336,929	402,771	149,298	
Cash operating expense	60,694	101,937	231,195	141,136	165,172	239,603	83,489	
Prepaid expense (-if increased)	(2,872)	(3,694)	(4,081)	(3,711)	(3,867)	(2,171)	708	
Accts. payable (+if increased)	(309)	(661)	1,533	156	1,495	(684)	(22)	
Farm-produced inputs	0	35	570	217	822	11	500	
Total operating expense	57,511	97,614	229,215	137,797	163,622	236,957	84,674	
Income before depreciation	41,787	95,898	224,730	133,088	173,307	165,814	64,624	
Less depreciation	16,959	24,188	55,767	34,176	46,560	61,726	18,557	
Capital account adjustment	106	775	1,084	786	2,028	444	1,544	
Net farm income* (operator's share)	24,934	72,485	170,046	99,698	128,775	104,532	47,610	
Labor & mgt. income per operator	18,286	31,917	41,548	33,311	53,502	53,502	18,673	
Rate earned on investment, %	(17,537)	4,657	6,032	1,928	5,426	(38,565)	939	
	0.76	4.19	4.73	4.29	4.52	2.64	2.96	

Note: Variations in totals due to rounding to the nearest dollar. Northern Illinois includes both northern and central Illinois. * Interest expense deducted from operator's share only. Shown in parentheses because it pertains to operator's net farm income only.

Table 26a. 1993 Average Operating Costs, Investments, and Land Use by Size and Months of Labor for Illinois Beef Farms

Area of state Range in size (total acres) Number of farms	Northern Illinois			Months of Labor			Southern Illinois
	180-339 12	340-799 42	Over 799 29	All Farms 83	Your Farm	21-27 17	31-39 7
Some costs and returns per tillable acre							
Soil fertility	38.15	34.43	34.70	34.81		33.76	26.27
Pesticides	26.75	26.34	27.34	26.96		27.54	26.68
Seed and other crop	18.79	20.48	20.61	20.45		18.95	22.23
Crop total	83.69	81.25	82.64	82.22		80.24	75.18
Light vehicle and utilities	10.61	10.11	7.02	8.31		7.19	7.67
Machinery repairs, supplies	25.14	28.12	24.08	25.54		22.18	32.41
Machinery hire	13.37	8.84	5.70	7.25		10.12	8.16
Fuel and oil	13.02	12.56	13.14	12.93		12.24	15.61
Machinery depreciation	45.11	43.93	39.95	41.64		43.90	33.17
Power and equipment total	107.25	103.56	89.89	95.68		95.64	110.77
Drying and storage	3.84	5.58	5.79	5.60		5.74	1.86
Building repair	12.03	7.65	4.82	6.23		6.24	4.56
Building depreciation	18.59	11.22	11.36	11.75		13.29	3.97
Building total	34.46	24.45	21.97	23.58		25.27	10.39
Labor, unpaid	70.99	46.26	24.19	34.65		29.70	31.05
Labor, hired	10.98	16.69	23.03	20.11		15.81	14.60
Labor total	81.97	62.95	47.21	54.76		45.52	63.35
Value of feed fed	254.90	262.19	227.52	241.18		200.42	275.97
Capital purchases	47.13	65.62	50.30	55.42		58.09	45.66
Operator interest paid	41.66	39.52	37.71	38.58		43.13	24.27
Crop returns	287.05	319.05	326.72	321.68		327.06	261.43
Livestock return above feed	79.00	115.00	85.40	95.28		82.83	31.67
Value of farm production	372.95	441.26	417.68	423.16		413.89	298.78
Total nonfeed costs	507.24	475.43	434.44	453.03		436.62	340.87
Management returns	(133.90)	(32.41)	(15.77)	(28.64)		(20.24)	(39.00)
Farm investment	120.730	226.981	447.773	288.763		332.178	154.356
Livestock inventory	69,650	92,498	240,385	140,866		194,882	72,456
Grain inventory	27,465	34,437	120,579	63,527		91,279	28,866
Remaining cost in	26,684	35,544	76,521	48,580		60,365	11,117
machinery and auto	0	50	0	25		0	0
buildings and fence	545,066	855,477	2,153,192	1,264,016		1,635,605	520,887
soil fertility	789,595	1,244,987	3,038,449	1,805,778		2,314,307	787,682
Value of land (current)	2,730	2,446	2,605	2,555		2,685	1,168
Total farm investment	103	79	111	99		112	58
Total investment per acre	68.2	65.2	65.1	65.3		58.5	36.4
Machinery invest. per till. acre	18.1	15.5	19.6	18.1		26.9	23.3
Percent tillable land in	0.0	0.5	1.1	0.8		0.9	0.2
Corn and corn silage	0.6	1.3	0.7	0.9		0.9	0.0
Soybeans	5.6	7.1	7.7	7.4		7.0	7.9
Other small grain	7.3	9.0	4.6	6.3		4.1	4.5
Diversified acres							
All hay and pasture							
Crop yields, bushels per acre							
Corn	124	122	124	123		128	103
Soybeans	46	46	48	48		49	37
Wheat	0	38	41	41		41	49

Note: Variations in totals due to rounding to the nearest dollar. Northern Illinois includes both northern and central Illinois.

Table 27. 1993 Average Return, Costs, and Financial Summary by Size, Type, and Soil Rating for Part-time Illinois Farms that Use Less than 10 Months of Labor

Area of state	Northern 56-85			Northern 86-100			Livestock		Southern 36-85		Livestock	
	Grain <260	Grain >260	Grain >260	Grain <260	Grain >260	Grain >260	All Farms	All Farms	Grain <260	Grain >260	All Farms	All Farms
Range in size (total acres)	40	55	55	55	59	59	11	11	22	37	37	5
Number of farms	180	452	416	166	394	362	186	186	189	472	472	273
Total acres in farm	156	416	416	166	362	362	159	159	149	389	389	194
Acres of tillable land	75	77	77	93	92	92	82	82	58	60	60	53
Soil rating on tillable land	5.4	6.5	6.5	4.9	6.2	6.2	6.4	6.4	4.6	6.1	6.1	6.1
Total months labor	0.2	0.5	0.5	0.1	0.5	0.5	0.4	0.4	0.1	0.2	0.2	0.1
Months of hired labor	22	23	23	4	14	14	107	107	7	72	72	143
Beef produced, hundredweight	31	68	68	21	5	5	979	979	6	38	38	357
Pork produced, hundredweight	0	0	0	0	0	0	0	0	0	0	0	0
Dairy cows, number	44,703	125,284	125,284	57,212	127,099	127,099	41,126	41,126	42,607	104,735	104,735	25,759
Dollar returns per farm	842	1,286	1,286	474	111	111	14,201	14,201	253	1,357	1,357	9,678
Crop returns	269	1,259	1,259	520	1,312	1,312	0	0	228	964	964	386
Livestock returns above feed	737	1,094	1,094	1,047	997	997	395	395	282	1,036	1,036	1,381
Custom work												
Other farm receipts	46,551	128,923	128,923	59,252	129,519	129,519	55,722	55,722	43,370	108,093	108,093	37,204
Value of farm production												
Dollar costs per farm	11,033	30,949	30,949	12,825	28,609	28,609	12,716	12,716	12,602	26,219	26,219	6,509
Crop expenses	12,567	23,263	23,263	11,817	22,348	22,348	15,824	15,824	8,895	25,514	25,514	10,579
Power and equipment	3,812	6,731	6,731	4,312	5,793	5,793	6,601	6,601	1,536	3,496	3,496	2,075
Building and fence	8,362	10,243	10,243	7,777	9,689	9,689	10,115	10,115	7,146	9,544	9,544	9,627
Labor	176	414	414	93	143	143	2,660	2,660	75	415	415	866
Livestock services and supplies	3,199	6,954	6,954	3,973	7,772	7,772	3,350	3,350	1,606	3,664	3,664	1,038
Taxes	2,249	4,694	4,694	2,893	3,835	3,835	2,785	2,785	1,592	3,405	3,405	1,785
Insurance and miscellaneous	4,127	7,162	7,162	3,652	7,431	7,431	6,452	6,452	2,417	6,322	6,322	3,857
Interest on nonland capital	13,677	35,380	35,380	17,922	37,227	37,227	14,773	14,773	9,105	24,006	24,006	12,783
Land charge or net rent	59,201	125,790	125,790	65,263	122,847	122,847	75,276	75,276	44,974	102,585	102,585	49,120
Total nonfeed cost	924	111	111	423	2,380	2,380	127	127	0	733	733	2,967
Capital account adjustment	(11,726)	3,244	3,244	(5,587)	9,052	9,052	(19,426)	(19,426)	(1,603)	6,240	6,240	(8,948)
Management returns												
Farm production per \$1.00	0.79	1.02	1.02	0.91	1.05	1.05	0.74	0.74	0.96	1.05	1.05	0.76
Farm production per man	104,025	238,614	238,614	143,774	251,715	251,715	103,742	103,742	114,041	212,830	212,830	72,949
Financial summary												
Cash operating income	49,466	132,961	132,961	60,782	128,511	128,511	81,633	81,633	40,955	112,165	112,165	48,139
Inventory change	2,139	9,239	9,239	9,664	2,404	2,404	2,635	2,635	3,972	913	913	4,755
Accts. receivable (net change)	(3,240)	(8,229)	(8,229)	(3,522)	(7,985)	(7,985)	(4,333)	(4,333)	(616)	(2,231)	(2,231)	0
Farm products used	78	235	235	68	180	180	455	455	60	557	557	247
Less purchased feed	1,008	2,471	2,471	322	381	381	17,140	17,140	765	1,209	1,209	11,904
Less purchased livestock	884	2,811	2,811	156	469	469	7,527	7,527	235	2,279	2,279	4,033
Adjusted gross farm income	46,551	128,923	128,923	59,252	129,520	129,520	55,722	55,722	43,370	107,914	107,914	37,204
Cash operating expense	27,232	63,409	63,409	31,617	60,106	60,106	39,647	39,647	23,589	52,264	52,264	21,046
Prepaid expense (-if increased)	(301)	(1,866)	(1,866)	(83)	(1,292)	(1,292)	(1,275)	(1,275)	(171)	(580)	(580)	0
Accts. payable (+if increased)	(38)	168	168	(283)	(42)	(42)	(10)	(10)	(57)	314	314	0
Farm-produced inputs	0	163	163	29	170	170	60	60	60	412	412	0
Total operating expense	26,891	61,873	61,873	31,278	58,940	58,940	38,360	38,360	23,420	52,409	52,409	21,046
Income before depreciation	19,660	67,050	67,050	27,974	70,580	70,580	17,362	17,362	19,951	55,505	55,505	16,156
Less depreciation	6,355	11,951	11,951	4,823	10,299	10,299	6,169	6,169	2,967	10,597	10,597	1,984
Capital account adjustment	924	111	111	423	2,380	2,380	127	127	0	733	733	2,967
Net farm income *	14,229	55,211	55,211	23,574	62,661	62,661	11,320	11,320	16,984	45,641	45,641	17,141
(operator's share) *	2,193	18,131	18,131	9,872	22,977	22,977	(1,206)	(1,206)	10,581	17,927	17,927	8,684
Labor & mgt. income per operator	(3,811)	12,525	12,525	2,001	17,960	17,960	(10,047)	(10,047)	5,484	15,265	15,265	501
Rate earned on investment, %	1.68	5.16	5.16	3.55	5.73	5.73	0.43	0.43	4.23	5.88	5.88	2.31

Note: Variations in totals due to rounding to the nearest dollar. Northern Illinois includes both northern and central Illinois. * Interest expense deducted from operator's share only. Shown in parentheses because it pertains to operator's net farm income only.

Table 27a. 1993 Operating Costs, Investments, and Land Use by Size, Type, and Soil Rating for Part-time Illinois Farms that Use Less than 10 Months of Labor

Area of state Range in size (total acres) Number of farms	Northern 56-85		Northern 86-100		Southern 36-85		Livestock All Farms
	Grain <260	Grain >260	Grain <260	Grain >260	Grain <260	Grain >260	
	40	55	55	59	22	37	
Some costs and returns per tillable acre							
Soil fertility	29.33	31.10	29.09	35.63	31.90	30.81	13.96
Pesticides	23.87	25.44	28.79	25.53	30.67	19.77	10.76
Seed and other crop	17.54	17.81	19.31	17.83	22.11	16.76	8.86
Crop total	70.75	74.34	77.19	78.99	84.68	67.34	33.59
Light vehicle and utilities	10.65	4.97	8.55	4.96	11.42	5.81	15.33
Machinery repairs, supplies	18.20	13.92	15.45	13.28	12.59	19.45	20.42
Machinery hire	14.39	5.97	17.47	13.94	13.29	7.09	3.39
Fuel and oil	7.84	7.28	7.63	6.35	6.06	8.76	8.65
Machinery depreciation	29.50	23.73	22.03	23.17	16.41	24.41	6.79
Power and equipment total	80.58	55.88	71.13	61.70	59.77	65.53	54.59
Drying and storage	8.45	9.56	13.75	9.16	2.59	3.82	0.12
Building repair	4.74	1.66	5.20	1.57	4.20	2.36	7.15
Building depreciation	11.25	4.95	7.00	5.27	3.53	2.80	3.44
Building total	24.44	16.17	25.95	15.99	10.32	8.98	10.71
Labor, unpaid	52.26	22.64	45.67	24.71	59.95	23.72	48.76
Labor, hired	1.36	1.97	1.13	2.04	0.39	0.79	0.91
Labor total	53.62	24.60	46.81	26.75	48.02	24.51	49.68
Value of feed fed	11.55	7.11	4.28	3.17	206.35	3.05	11.96
Capital purchases	39.50	26.96	19.07	32.74	27.01	29.57	109.08
Operator interest paid	23.13	16.01	20.17	15.32	9.34	17.22	25.38
Crop returns	286.65	300.94	344.35	350.90	286.30	269.00	132.91
Livestock return above feed	5.40	3.09	2.85	0.31	1.70	3.49	49.94
Value of farm production	298.50	309.68	356.63	357.59	291.43	277.62	191.97
Total nonfeed cost	379.62	302.16	392.80	339.17	302.21	263.48	253.45
Management returns	(75.19)	7.79	(33.63)	24.99	(10.78)	16.03	(46.17)
Farm investment	4.197	4.573	819	2,888	32,988	8,032	30,631
Livestock inventory	29,127	70,680	35,329	80,140	20,410	54,857	10,570
Remaining cost in							
machinery and auto	11,720	16,914	5,259	16,429	8,061	20,334	4,391
buildings and fence	13,104	9,631	10,860	11,184	3,219	5,044	3,771
soil fertility	6	71	28	162	0	70	0
Value of land (current)	303,939	786,233	398,258	827,262	202,331	533,473	284,059
Total farm investment	362,093	888,104	450,552	938,065	234,520	621,809	333,422
Total investment per acre	2,015	1,964	2,485	2,379	1,244	1,318	1,220
Machinery invest. per till. acre	75	41	32	45	51	52	23
Percent tillable land in							
Corn and corn silage	49.7	47.9	47.3	49.3	39.0	34.5	22.4
Soybeans	35.9	41.8	46.0	42.2	43.3	43.0	17.3
Wheat	3.2	2.2	0.0	0.9	11.7	12.7	4.5
Other small grain	0.3	0.3	0.1	0.1	0.0	0.0	0.0
Diversified acres	5.6	5.5	4.9	4.8	1.4	3.7	39.5
All hay and pasture	1.7	0.8	0.2	0.8	2.3	2.2	16.2
Crop yields, bushels per acre							
Corn	118	121	138	141	134	117	110
Soybeans	44	43	47	48	39	37	32
Wheat	40	48	50	46	50	48	28

Note: Variations in totals due to rounding to the nearest dollar. Northern Illinois includes both northern and central Illinois.

ASSOCIATIONS, FIELD STAFF, AND COOPERATORS ENROLLED

Associations and Field Staff

Associations and Field Staff

BLACKHAWK

701

Kristian S. Lauritzen
Lee K. Freedlund
Alan Petersohn
Jeffrey L. Johnson
Rodney B. Gieseke
Garrett Plumley
Mark Sturtevant

WESTERN

689

Gary Goodwin
Thomas H. Jennings
Roy L. Ewalt
Mike R. Shepherd
Timothy D. Phelps
Roberta Boarman
Robert Rhea
David A. Ward
Gary L. Donley

SANGAMON VALLEY

655

Dorrence B. Brucker
James E. Phelan
Aaron W. Liesman
Kevin E. Coultas
Harold L. Gates

LINCOLN

1,132

Arnold A. Galloway
Michael E. Schmitz
Thomas J. Nolte
John E. White
Dennis J. Graden
Louis J. Aldag
Donald L. Hampton
Bradley E. Yockey
Dathel Davidson
Daniel A. Doan
Robert E. Anniss, Jr.

NORTHEASTERN

338

Donald R. Muehling
David J. O'Brien
Michael G. Bossert

ILLINOIS VALLEY

692

Danny L. Stetson
John A. Hudson
Dale J. Heinkel
Bradley G. Lenschow
James P. McCabe
Scott M. Newport

PIONEER

1,406

Maurice E. Sprout
Jerry Crump
Gary E. Bressner
Kent Meister
Thomas R. Hand
John F. Kennedy
Les A. Marti
Darren L. Bray
Gary Freeman
Richard Smith
Michael C. Heiser
Rodney G. Robenstein

EASTERN

547

Robert K. Boesdorfer
Howard Peverly
Bruce E. Burk
Donald E. Becker
Mitchell A. Fruhling

EAST CENTRAL

597

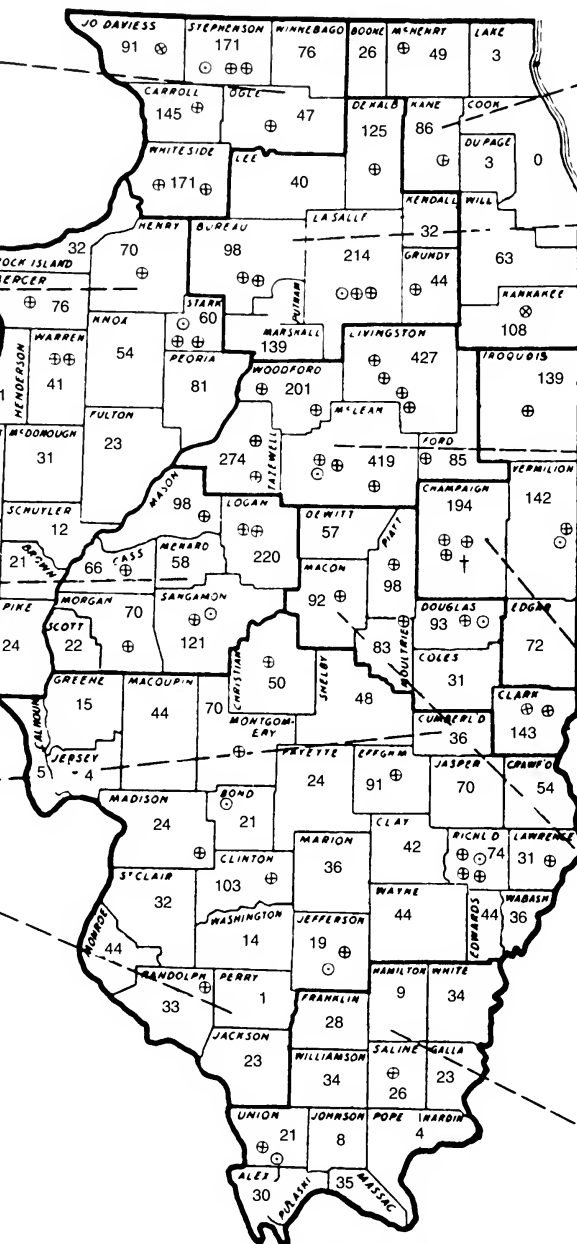
James E. Cullison
Roland D. Gustafson
Gary E. Connelly
Jeffrey D. Lewis
Robert Daggett
Craig L. Macklin

SHAWNEE

252

Robert D. Kieseomcs
Douglas E. Hileman

- * Numbers are Enrollment Totals
- 66 ⊕ Field Staff Office (Home)
- 11 ○ District Record Processing Office
- † State Office



OFFICIAL ENROLLMENT

June 1, 1994

RETIREES



Robert "Bob" Rodgers

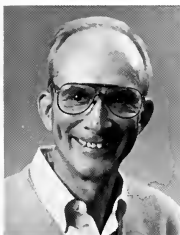
This Macon County native attended Millikin University in Decatur for 2 years before enrolling at Iowa State University. He graduated in 1950 with a B.S. in agriculture, farmed in partnership with his father for 2 years, and in 1953 earned an M.S. in agricultural economics from the University of Illinois at Urbana-Champaign. During his graduate study he was

employed by the U.S. Department of Agriculture as an account book auditor and a graduate research assistant.

After completing his graduate degree, Rodgers managed a Piatt and Champaign County farming operation that grew to 1,020 acres in 8 years. In 1961 he was employed by the Bloomington Farm Management Service as a farm manager.

In September of 1963, after briefly serving as an insurance representative, Rodgers began work for the Lincoln FBFM Association. He completed over 30 years of service for FBFM, serving farmers in Greene, Macoupin, Jersey, and Calhoun counties. He was an early adopter of microcomputer technology to assist in the accounting and income tax processing tasks of FBFM employment.

Rodgers was a member of the Illinois and American Society of Farm Managers and Rural Appraisers for many years.



L. David Schroll

Reared on a farm in Mercer County, Schroll attended Millikin University before transferring to the University of Illinois at Urbana-Champaign. He received a B.S. in agriculture in 1952, served 2 years in the Army, and then returned home to operate the home farm with his brother. In 1959 he moved to California for 2 years to help manage a turkey farm.

In January 1962, Schroll was employed by Western FBFM Association. He had been familiar with FBFM, as his home farm was enrolled in the program and his father was the first president of the Illinois FBFM Association. He spent 2 years with Western FBFM before accepting a position with the Illinois Power Company in Decatur. Schroll returned to FBFM employment when he began work for Pioneer FBFM in August 1966. The geographic area he serviced encompassed a large part of Tazewell County. In total he served FBFM for almost 30 years.

Schroll was known for his high degree of integrity and professionalism. He was among the first to encourage cooperators to record all of their financial data in order to receive complete and accurate financial statements. In many respects, Schroll set the standard in job performance for other field staff to follow.



George Shafer

Born and raised in West Virginia, Shafer attended Virginia Polytechnic Institute and received a B.S. in agricultural education in 1950. After teaching vocational agriculture in high school and 2 years in the Army, he earned an M.S. in agronomy from West Virginia University in 1955 and another M.S. in agricultural economics from the University of Illinois in 1957.

Combining his training in agronomy and agricultural economics, Shafer worked for the Soil Conservation Service in Wisconsin as an agricultural economist from 1957 through 1960. In September 1960 he was employed by Sangamon Valley FBFM Association. This appointment began more than 32 years of employment with FBFM, during which he served cooperators primarily in Morgan and Scott counties and in Cass County during the early part of his career. His agronomic training was an excellent resource to assist his cooperators in analyzing the productivity of different soils and also in implementing approved soil conservation practices.

Shafer is an active church member; among his other activities, he served as director of the Jacksonville Church Softball League for over 20 years. He is also active in various hunger relief programs.



Gordon Wakey

This Henry County native attended Cornell College in Iowa before transferring to the University of Illinois at Urbana-Champaign. He received a B.S. in agriculture in 1955. From 1959 to 1966, Wakey represented a feed company, worked in the farm management business, and became co-owner of a grain and feed business. He then took a position as a farm manager with Hutchinson Farm Management Service in Geneseo.

In 1968 he began a 25-year career with the University of Illinois Cooperative Extension Service. He served as a Rock Island County assistant and associate extension adviser in agriculture from 1968 to 1976. During this time he earned an M.S. in extension education from the University of Illinois. In December 1976 he transferred to Will County as a senior extension adviser in agriculture. Wakey was employed by the Northeastern FBFM Association in October 1981 and served cooperators in Will County for 12 years before retiring. During his many years with the University of Illinois Cooperative Extension Service, he established a reputation as a very dedicated and conscientious fieldman.

Prepared by D.H. Lattz, C.E. Cagley, Clark Roberts, and Irene Chow
of the Department of Agricultural Economics

Urbana, Illinois

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